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STATISTICAL REPORTS

ON THE

SICKNESS, MORTALITY, & INVALIDING,

AMONG THE TROOPS

IN

WESTERN AFRICA,

ST. HELENA,

THE CAPE OF GOOD HOPE,

AND

THE MAURITIUS;

PREPARED FROM THE RECORDS OF THE ARMY MEDICAL DEPARTMENT
AND WAR-OFFICE RETURNS.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:

PRINTED BY W. CLOWES AND SONS, 14, CHARING-CROSS,
FOR HER MAJESTY'S STATIONERY OFFICE.

1840.

31091

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INTRODUCTION.

IN the present Volume are submitted the following Reports and relative Appendices :—

- I. On the Sickness, Mortality, and Invaliding among the Troops serving on the Western Coast of Africa.
- II. On the Sickness, Mortality, and Invaliding among those serving in St. Helena.
- III. On the Sickness, Mortality, and Invaliding among those serving at the Cape of Good Hope.
- IV. On the Sickness, Mortality, and Invaliding among those serving at the Mauritius.

With these would have been included a similar Report on the Health of the Troops in the Australian Colonies, but so many of the detachments there have been under the charge of civil practitioners, who do not furnish returns to the Army Medical Department, that the necessary information in regard to the prevailing diseases, cannot at present be procured. This defect, however, may yet be supplied; and in the meantime, the extreme salubrity of the climate may be estimated from the circumstance, that on the average of 20 years from 1817 to 1836 inclusive, the mortality did not exceed 14 per thousand of the force annually, whereof more than a fifth part arose from violent or accidental deaths, principally attributable to the nature of the duties on which the Troops were employed. Thus the mortality from disease alone could have amounted to little more than one per cent. annually, being lower than in any other Colony, except the Eastern Provinces of the Cape of Good Hope, to which the climate of Australia is in many respects similar.

The materials for the preparation of these Reports have been principally drawn from the valuable records of the Army Medical Department, corrected where necessary by the War Office Returns. These Records also contain a most extensive store of information in regard to the history, symptoms, and treatment of the various diseases incident to Troops in every quarter of the globe, bearing ample testimony to the zeal and industry evinced by the Medical Department of the Army: but, as a statistical document, this volume can of course only convey a very brief

summary of the principal facts in regard to the extent of Sickness and Mortality, coupled with a few plain deductions from the numerical evidence which they supply.

As on a former occasion, I have to express my obligations to Deputy Inspector General Marshall, and Staff Assistant Surgeon Balfour, for the valuable aid they have afforded me. To the former I am indebted for his careful revision of these pages, as well as for much of the information which originally directed my attention to such inquiries; and to the latter, for his zealous co-operation in the arrangement and preparation of the voluminous documents from which this Report has been compiled.

ALEX. M. TULLOCH,
Major.

War Office, February, 1840.

STATISTICAL REPORT

ON THE

SICKNESS, MORTALITY, AND INVALIDING

AMONG THE TROOPS

ON

THE WESTERN COAST OF AFRICA.

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SECTION I.

On the Sickness and Mortality among the Troops on the Western Coast of Africa.

It is to be regretted that on this coast, where the baneful effects of climate on the European constitution exhibit themselves in their most concentrated form, and where it would have been of the utmost importance to trace the diseases of each station with the same minuteness as in previous Reports, the materials are neither so ample as those from other colonies, nor admit always of the same arrangement as has been hitherto adopted. The unceasing occupation of their professional duties in so unhealthy a climate left medical officers little time for making the proper distinction between the diseases of white and black troops; and their death has frequently prevented information from being obtained at those periods when the mortality was at its greatest height, and when an accurate statement of the particular circumstances under which it occurred would have been most interesting and useful.

Western Coast of Africa.

The British settlements in Western Africa are scattered over a line of coast which, from St. Mary's on the Gambia to Accra, is nearly 1600 miles in extent, and consequently presents considerable diversity in climate, soil, surface, and geological structure, but everywhere exhibits the same remarkable hostility to the European constitution. Geographical Position.

On the cession of Goree and Senegal to the French, the only stations occupied by the British troops on the coast were Sierra Leone, Gambia, and the Isles de Loss; but in 1821 the settlements of Cape Coast Castle and Accra, with their dependencies, having been transferred to the British Government by the African Company, were formed into another Command, of which it will be necessary to investigate the sickness and mortality separately.

I. SIERRA LEONE COMMAND.

In this Command are comprised the stations of Sierra Leone, the Isles de Loss, and the Gambia, whereof the following brief notice is submitted, in order to convey some idea of the localities which prove so inimical to our troops, and the circumstances which led to their employment on so unhealthy a coast.

Sierra Leone Command.

The peninsula of Sierra Leone occupies an intermediate position in our settlements along this coast, being about 500 miles to the south of the Gambia, and 1100 to the north of Accra, and comprehends a tract of land extending about 18 miles from north to south, and 12 from east to west, consisting principally of a range of conical mountains from 2000 to 3000 feet in height, surrounded by a belt of level ground from one to five miles in breadth, to which have recently been added the Banana Islands and some minor acquisitions of territory.

From the north to the south-east the whole country adjoining the peninsula is intersected by numerous creeks and rivers, which, overflowing during the rainy season, form extensive swamps in every direction. Indeed, it may be stated generally, that the whole coast from Senegal to Sierra Leone, a distance of above 700 miles, is exceedingly low, being not more than a few feet above the ocean; that the rivers with which it is intersected are sluggish in their course, and flooded during the rains, when the mud they deposit, and the moisture they supply, give birth to an interminable wilderness of forest and brushwood, among which lies rotting the decayed vegetation of many centuries.

From the noxious agencies likely to be generated in such a tract, the peninsula of Sierra Leone, however, is sheltered by the mountain ranges which form the boundary in that direction, while on the south it is washed by the Atlantic, and on the north by an estuary terminating in the Sierra Leone river, so that it seems protected by nature from all extraneous sources of disease, except such as may originate on the opposite side of the river, called the Bulam shore; and, so far as can be ascertained, there is nothing within the limit of the colony itself, likely to induce that sickness and mortality which has proved so fatal to every class of the population.

The establishment of the Colony of Sierra Leone is comparatively of recent date. In the year 1787 some philanthropic gentlemen, who had begun to interest themselves in behalf of the Africans, removed 470 of that race, then in a state of destitution in London, to this part of the coast, where ground was allotted to them. Three years afterwards 1196 negroes arrived, who, having assisted the British army during the American war, originally had lands assigned to them in Nova Scotia; but the cold of that climate proving injurious to their constitutions, it was deemed advisable to remove them to this settlement. A further increase took place in 1800, by the transportation of 550 Maroons from Jamaica; and on the disbandment of the 4th West India Regiment and Royal African Corps, 1222 black soldiers and their families were, in 1819, sent to form villages on ground allotted to them in various parts of the peninsula. Since the abolition of the slave-trade in 1807 the slaves captured by our cruisers have also been liberated in the Colony and materially contributed to swell the population, which, including a few European merchants, now amounts to about 42,000 souls*.

Free Town, the capital, stands on the south bank of the Sierra Leone river, and about five miles from the sea, in Lat. 8° 29' 30" North, Long. 13° 9' 27" West. At the distance of about a mile it is surrounded on the west, south, and east by a semi-circular range of lofty hills, clothed to the summit with high trees and thick underwood, and to which there is

Free Town.

* The census of 1838 states them as follows:—Whites, 83 Males, 19 Females; Blacks, 21,559 Males, 18,381 Females; Aliens, 1681 Males and Females.

*Western Coast of
Africa.**Sierra Leone
Command.*

a gradual ascent from the river. This position gives it a very pleasing aspect, by no means calculated to impress an idea of insalubrity, and as the soil is gravelly, and has a gentle slope, the rain is speedily absorbed or drained off even during the most inclement periods of the wet season. The houses are mostly built of wood and disposed in broad and regular streets, in many places yet uncleared of the brush and underwood with which the site was originally covered. There is little cultivation in the immediate vicinity of the town, the soil not possessing great capabilities for agriculture; but considerable progress has been made at some of the villages in the interior, where it is better adapted for that purpose.

The town is elevated about 50 feet above the river, the banks of which were formerly covered with a dense barrier of mangrove bushes. This, having been supposed a fertile source of disease, was cleared to a considerable extent, without however effecting any obvious improvement in salubrity. The distance from the Bulam shore opposite is about seven miles; the soil on that shore is a ferruginous clayey loam, which is apt to form marshes during the rainy season, owing to the surface being almost level. In the earlier years to which this Report refers it was covered with thick brush and underwood, and supposed in some instances to have given rise to the unhealthiness of the colony; but though cultivation has since made considerable progress in that quarter, and the face of the country is rapidly improving, no corresponding amelioration has been permanently manifested in salubrity.

Isles de Loss.

The Isles de Loss lie about 60 miles north-west of Sierra Leone, in Lat. $9^{\circ} 0' 22''$ North, Long. $13^{\circ} 32'$ West. They are five in number, but only three are habitable. The nearest is three, and the most distant, eight miles from the main land. They were purchased in 1818, on account of their supposed salubrity, and with the view of protecting and encouraging trade along the coast. A few disbanded black soldiers and two or three Europeans, who have established a factory there, form, with the detachment, the only inhabitants. Crawford's Island, on which the troops are stationed, is the centre of the group, and is described as entirely composed of granite, elevated 250 feet above the level of the sea, and about a mile and a-half in length, though scarcely 100 yards in breadth. It is entirely exempt from that exuberance of vegetation which prevails on the main land, and in no part of it, nor in any of the other islands, are either pools or marshes to be found, so that if the insalubrity of the Command arose from the combined influence of these agencies, it ought not to have extended to this station, unless we can suppose the miasma capable of being conveyed from the main land with undiminished virulence across several miles of ocean.

Gambia.

The principal settlement on the Gambia is at the Island of St. Mary's, about 500 miles north-west of Sierra Leone, and was established in 1817 owing to the facility for trade presented by a river navigable upwards of 500 miles into the interior. The island lies in Lat. $13^{\circ} 25'$ North, Long. $16^{\circ} 38'$ West, is about five miles in length and one in breadth, and consists merely of a sand-bank formed by the confluence of the tides at the mouth of the river. It is consequently in many places under high-water mark, which renders it, during the rainy season, one complete marsh. The soil is too light to be well fitted for agriculture, but, where intersected by creeks and aided by the alluvial deposits brought down by the river, gives birth to dense masses of mangroves, underwood, and every species of rank vegetation, which, particularly during the hot season, create most offensive effluvia throughout the whole island. The country along the banks of the river, to the distance of 50 or 60 miles from its mouth, is so low as to be nearly on a level with the water, is covered with impenetrable mangrove bushes, reeds, and brushwood, and, at ebb tide, innumerable shoals of mud and masses of decayed vegetation are left exposed to the action of a tropical sun.

The town of Bathurst is built on the east side of the island, along the beach, upon a ridge of sand somewhat elevated above the level of the sea. Efforts have of late been made, by the construction of dykes and drains, to render the town less swampy during the rainy season, and thus improve its salubrity, but without much success. In 1826 the inhabitants, exclusive of the military, amounted to 1867, of whom only 20 were Europeans.

M'Carthy's Island.

There is another small settlement at M'Carthy's Island, 330 miles up the Gambia, where a small detachment of troops is posted for the protection of trade: but of this locality we possess no description.

*Climate of West
Coast of Africa.*

The principal characteristic of the climate of this coast is its extreme humidity, as will be sufficiently apparent from the following table, showing the quantity of rain which fell at Sierra Leone during three months of 1828:—

Rain.

	Inches.		Inches.		Inches.		Inches.		Inches.		Inches.
June 1	Quantity not ascertained.	June 17	3.10	July 1	4.35	July 17	1.25	Aug. 1	4.25	Aug. 17	7.
2		18	3.	2	3.	18	6.10	2	4.25	18	..
3		19	3.10	3	3.25	19	2.	3	4.25	19	3.15
4		20	3.75	4	4.	20	2.25	4	4.10	20	4.
5		21	2.10	5	5.	21	..	5	4.	21	5.10
6		22	2.25	6	1.25	22	4.25	6	..	22	10.
7		23	3.10	7	4.	23	2.	7	2.15	23	16.
8		24	4.25	8	4.25	24	3.25	8	..	24	8.10
9		25	2.25	9	6.	25	6.25	9	2.10	25	2.15
10		26	3.25	10	14.10	26	1.10	10	3.	26	3.10
11		27	4.	11	10.50	27	2.	11	3.25	27	1.10
12		28	4.25	12	4.	28	3.	12	4.10	28	1.10
13		29	3.25	13	4.25	29	2.25	13	6.	29	1.
14		30	3.	14	5.10	30	3.	14	3.	30	2.10
15				15	9.50	31	3.	15	3.10	31	6.
16				16	1.			16	6.25		
		Total .	64.55			Total .	125.25			Total .	123.7

As we cannot complete the Table for the rest of the year, and as that season appears to have been more rainy than usual, we subjoin the following measurement of the fall during six months of 1819, which is all the information we have been able to obtain on this subject :—

	Inches.
July	45.47
August	46.07
September	29.73
October	10.73
November	5.60
December	6.94

Total 144.54

The excessive moisture of the climate may be estimated from the fact of more rain having fallen in two successive days, the 22nd and 23rd August, than in Britain throughout the whole year.

The only places in which the fall of rain approximates to that on this coast, so far as we can ascertain, are*—

Western Coast
of Africa.
Sierra Leone
Command.

	Inches.		Inches.
Maranhao, Brazil, annually.	280 $\frac{2}{4}$	Arracan, Burmese Territory, in July . . .	60
Coast of Malabar, East Indies, 1818 . . .	169	August . . .	43
Cayenne, in February alone.	160	High Lands of St. Helena for the year 1826	281 $\frac{1}{2}$

The quantity of rain at the Gambia is not so great as at Sierra Leone, the rainy season generally commencing a month later and ending a month earlier.

The temperature along this portion of the coast, as indicated by the thermometer, does not exhibit any marked peculiarity, compared with other countries in similar latitudes. The following Table shows its range throughout the year at Sierra Leone and the Gambia :—

Temperature.

1820	SIERRA LEONE.			GAMBIA.		
Months.	Max.	Med.	Min.	Max.	Med.	Min.
	o	o	o	o	o	o
January . . .	86	80	79	85	80	75
February . . .	87	80	80	86	82	75
March . . .	86	80	79	86	82	78
April . . .	84	81	79	87	82	76
May . . .	85	81	79	86	81	80
June . . .	80	80	78	86	80	78
July . . .	84	80	78	85	83	81
August . . .	82	80	75	87	85	82
September . .	83	80	78	89	87	85
October . . .	83	80	78	85	80	79
November . .	83	81	79	86	82	76
December . .	85	82	77	86	80	78

With the exception of Sierra Leone, where the diurnal range of the thermometer rarely exceeds 10°, sudden transitions from heat to cold, with dense and chilling fogs for many months of the year, form the general characteristic of the whole west coast of Africa, particularly at the Gambia, where the thermometer has sometimes fallen as low as 62° in the morning, during October, November, and December, and then risen to 80° in the course of a few hours. These sudden changes of temperature, though much dwelt upon by the medical authorities as probable exciting causes of sickness and mortality, are, however, by no means uncommon in tropical climates. At Kandy, in Ceylon, the thermometer has frequently been remarked as low as 58° in the morning, yet has risen to 86° in the shade by mid-day, and at Seringapatam, in the Madras Presidency, it has been observed at 54° in the morning, accompanied by cold dense fogs, and as high as 92° by mid-day, being a much wider range than on this coast, without any great degree of mortality being thereby induced. The same peculiarity prevails also at Hyderabad and many other stations in the East Indies.

Sierra Leone, as well as our other settlements on this coast, lies beyond the influence of the trade winds, which, as described in the West India Report, operate so powerfully in reducing the temperature and rendering the climate of some tropical regions more tolerable for Europeans. The peninsula enjoys, however, a regular succession of sea and land breezes, the former commencing about nine o'clock A.M., from the West-North-West, always cool and pleasant, the latter setting in about the same hour in the evening, from the East and South-East, but generally heated, and laden with humid exhalations from the low and swampy ground over which it passes. The interval between the dying away of one breeze and the springing up of another is always hot and oppressive.

Winds.

At the Isles de Loss and Gambia the land and sea breezes are generally from the north-west and south-west. All along the coast there prevails during the months of December, January, and February, a dry, parching, easterly wind, termed the Harmattan ; but, except on catarrhal and pulmonary affections, its influence seems rather favourable than prejudicial to health.

There are two seasons, the wet and the dry. At Sierra Leone and the Isles de Loss the former extends from May to November, and at the Gambia from June to September or October, and is always ushered in and carried off by tornados. Nothing can exceed the gloominess of the weather during this period: the hills are wrapped in impenetrable fogs, and the rain falls in such torrents as to preclude that exercise and amusement which are so

Seasons.

* On this point, see also Note A. of Appendix.

Western Coast of
Africa.

Sierra Leone
Command.
Troops employed.

necessary to invigorate the body and give energy to the mind. At this period, the diseases which prove so fatal on the coast have generally made their appearance, though there have been so many exceptions, that they can scarcely be said to belong peculiarly to any season.

During most of the period under review the force consisted of a colonial corps of white and black troops, the former unfortunately of a class the least fitted to contend with such a climate, being principally soldiers allowed to volunteer their services as a commutation of punishment, and whose vices and intemperance, no doubt, in many instances facilitated the inroads of disease.

Till 1817 the number of white and black soldiers was nearly equal, but in that year most of the former were removed to the frontier settlements of the Cape of Good Hope; and in 1819 the whole corps was disbanded and replaced by the 2nd West India Regiment, composed, with the exception of a few serjeants, entirely of negroes. In 1823, however, a war having broke out with the Ashantees, the white soldiers formerly disbanded at the Cape of Good Hope were hastily re-embodied and sent to the defence of Cape Coast Castle; the survivors of these were subsequently transferred to the Sierra Leone Command, and, with several drafts of commuted punishment men from England, formed into the Royal African Colonial Corps, which thus again consisted of Europeans of the most degraded class. Death, however, thinned the ranks with such rapidity that an attempt had to be made, in 1825, to keep up the force by voluntary enlistment; above 100 recruits were in this manner raised and sent from Britain, but though their character and conduct appear to have been unexceptionable, they soon shared the same fate as their depraved comrades. The impossibility of maintaining white troops in such a climate being thus demonstrated, the garrison has, since the end of 1829, consisted entirely of blacks, with the exception of a few European serjeants.

Barracks and Hos-
pitals.

In a climate so remarkable for its insalubrity and the extreme inclemency of the rainy season, it was obviously essential to the health and efficiency of the troops that all the buildings occupied by them should be of the most substantial description. Such, however, was the state of decay and dilapidation during the earlier years included in this Report, that, in 1821, the medical officer reported it was fortunate the troops were natives, for, had they been Europeans, he felt convinced the whole of them would be carried off in the course of twelve months; and fatally was this prediction verified, when, in 1824 and 1825, that description of force was employed without any improvement having been effected in this respect. Many of the officers even could then obtain no better accommodation than rude huts, incapable of affording shelter from the inclemency of the rainy season, and in which it was not uncommon to find the husband, wife, and children lying in the last extremity of fever in the same room.

It has been necessary to advert to this important fact, because, baneful as the climate of this colony unquestionably proves to the European constitution, even under the most favourable circumstances, it would be improper to attribute the heavy loss sustained by the white troops to that cause alone, when it might, in some measure, have been induced by so powerful an accessory.

At Sierra Leone, however, these defects were remedied in 1826, by the erection of new buildings, which are stated to be good, ample, and commodious. The barracks are situated on the summit of a conical hill 400 feet high, and nearly in the centre of the elevated range which surrounds Free Town. They consist of three large brick buildings, one for the officers, and two for the non-commissioned officers and privates; the latter are three stories high including the ground-floor, and are surrounded by a piazza ten feet broad. The hospital is a large stone building on the side of a hill, more elevated than any part of the town; it consists also of three stories including the ground-floor, with a piazza similar to the barracks, and, besides the surgery and requisite offices, contains two wards which afford accommodation for 44 patients.

The barracks are supplied with water during one-half of the year from two large tanks or reservoirs, into which the rain flows from the roof of the buildings; during the rest of the year it is brought from a spring at the bottom of the hill on which the barracks stand. The hospital is also supplied from a spring about half a mile distant.

Of the barracks at the Isles de Loss we can furnish no details; but the force stationed there has, of late years, been so small that the information is of little importance.

The barrack at the Gambia is a substantial stone building, erected about 20 years ago, and said to be capable of affording accommodation for 150 men, but situated in the vicinity of the lowest ground in the island, where during the rains an extensive swamp is formed which, in the dry season, leaves the surface covered with a crust of sea-salt. The rooms are also stated to be very liable to damp, and their ventilation defective from the lowness of the site. The hospital enjoys a better position, and is said to be more than sufficient for the average number of patients, but regarding it we possess no specific details.

Water is obtained from wells sunk in the barrack and hospital yard, but though in abundance, it is brackish, and liable to cause slight affections of the bowels in persons unaccustomed to it. There is no spring water of good quality to be obtained nearer than 15 miles.

The barrack occupied by the detachment at M'Carthy's Island is merely part of a shed, in which the liberated Africans are lodged; the hospital is on a ground-floor, with mud walls and thatched roof, and both buildings afford very insufficient accommodation, especially during the rainy season. The water is said to be of good quality.

The ration of the soldier at present consists of 1 lb. of meat and 1 lb. of bread daily, for which he is subject to the regulated stoppage of 5d. per day. Fresh meat is generally issued on five days in the week, and salt beef or pork on the other two. A good supply of coffee and rice is also obtained in addition to the rations for about 2d. per day. Breakfast takes place at 8 A. M., and dinner at 1 P. M. The rations and diet are the same for the black as for the European troops. There is no regulated supper, but most of the negro soldiers are in the habit of providing themselves with a hot meal, which they take about sunset.

Rations and Diet.

Though, of late years, no privations have been experienced in regard to diet, this does not appear to have been the case during the period when the white troops were employed, as the following extract from the Report of the Sierra Leone Commissioners in 1827, shows that some portion of the sickness and mortality was probably attributable to that cause:—

“ It will be seen by the communications of the Medical Officers, that the rations issued to the white troops upon the coast generally, are not of a description well calculated to enable them to resist the injurious influence of climate, or recover from its effects. It is only upon the Gold Coast that the troops have been altogether without fresh meat, but that which is issued at Sierra Leone, or even on the Gambia, though better, is of very inferior quality.”

In consequence probably of this representation, the issue of fresh meat was, in 1827, increased to five days per week, and, of late, the quality also, has very materially improved.

Having given these details in regard to the various circumstances by which, independent of the destructive agency of climate, the health of the white troops may possibly have been affected, it is only necessary to add, that there appears to have been nothing in the nature of their duty or employment at all likely to have contributed to the extreme sickness and mortality experienced by them in this Command as detailed in the following Table:—

Western Coast
of Africa.
—
Sierra Leone
Command.

Years.	Mean Strength.	Admissions into Hospital.	Deaths.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1819	35	86	7	2,397	397
1820	6	26	2		
1821	5	10	1		
1822	10	27	9		
1823	6	11	6		
1824	6	3	2	2,772	783
1825	571	1,583	447		
1826	471	1,499	342		
1827	345	976	50		
1828	232	875	10		
1829	114	296	11	2,596	97
1830	9	26	..		
1831	1	4	1		
1832	5	3	..		
1833	10	30	1		
1834	8	17	..	2,310	72
1835	7	11	..		
1836	2	6	1		
Total .	1,843	5,489	890	2,978	483

Table I.
Showing the Admissions into Hos-
pital and Deaths
among the White
Troops in the Sierra
Leone Command.

Thus, even during so long a period as 18 years, the admissions have averaged 2,978, and the deaths 483 per thousand of the strength; in other words, every soldier was thrice under medical treatment, and nearly half the force perished annually; indeed, in 1825 and again in 1826, when the mortality was at its height, three-fourths of the force were cut off.

High as this estimate appears, however, it states the loss of the troops at the minimum, being framed from the Medical Returns, wherein such deaths only are specified as occurred from diseases under hospital treatment, leaving out of view those from accidents, violence, &c., which we have been precluded from supplying, as in other reports, by reference to the War Office Returns, because, unfortunately, these documents make no distinction between Black and White troops.

As will hereafter be explained, however, a considerable portion of the deaths in 1825 and 1826 took place at the Gambia, which proved the grave of almost every European sent there. Had the mortality of each station been kept distinct, that of the European troops at Sierra Leone would not probably have exceeded 350 per thousand, or rather more than a third of the garrison annually.

There can be no doubt that the casualties of 1825 and 1826 raised the mortality in this Command considerably above the usual average, but in almost every year it has proved exceedingly inimical to Europeans. From information supplied by the Report of the Sierra Leone Commissioners, it appears that during the nine years antecedent to 1819, the mortality of the white troops on this coast averaged about a fourth part of their number annually, and even so far back as 1792, we find that the loss of the soldiers and white colonists sent out by the Sierra Leone Company was in the same proportion:—

	Of Company's Civil Servants.	Overseers, Artificers, Clerks, and their Families.	Settlers and their Families.	Soldiers.	Total.
Of these, there landed in 1792.	26	59	18	16	119
Died from 1792 to 1794 . .	4	29	13	11	57

Which gives an average mortality of about a fourth part of the white population annually.

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The extent to which vice and intemperance was carried, not only by the troops but other classes also of the white population, may probably have aggravated the evils of climate: that this, however, could only have contributed in a very minor degree to induce the mortality here recorded, is sufficiently proved by reference to what took place among the Church Missionaries, a class of persons least likely to have been subject to such exciting causes of disease:—

Of 89 who arrived between March 1804 and August 1825,	
all men in the prime of life, there died	54
Returned to England in bad health	14
„ „ in good health.	7
Remained on the coast	14
Total	69

If we assume the number resident in 1825 as the average constantly present during the preceding 21 years, and it is not likely to have been more, the mortality may be estimated at about 17 per cent. annually, though not including the years in which the troops suffered most.

In common with all tropical climates, that of Western Africa exhibits remarkable variations in salubrity in different years, without any obvious cause to induce such a change; between 1830 and 1836, for instance, the Colony enjoyed a succession of such healthy years as to induce the supposition that the causes which had rendered it so long a terror to Europeans were never likely to come again into operation; but the fatal epidemics of 1837 and 1838 dispelled this pleasing delusion, and showed how little reliance could be placed on what were merely the vicissitudes characteristic of a treacherous climate.

We shall refer to frequent instances of the uncertain character of the climate in this respect, when we come to notice the different diseases by which this sickness and mortality was occasioned. These will be found minutely detailed in Appendix No. 1., of which the following Table exhibits the results in a condensed form:—

Table II.
Showing the principal diseases among the White Troops serving in the Sierra Leone Command.

	ADMISSIONS.		DEATHS.	
	Total among whole force in 18 years.	Annual ratio per 1000 of Mean Strength	Total among whole force in 18 years.	Annual ratio per 1000 of Mean Strength
By Fevers	2,600	1,411	756	410·2
Diseases of the Lungs	103	56	9	4·9
„ of the Liver	150	82	11	6·
„ of the Stomach & Bowels	929	504	76	41·3
„ of the Brain	32	18	8	4·3
Dropsies	39	21	8	4·3
Rheumatic Affections	103	56	1	
Venereal „	117	64	2	
Abscesses and Ulcers	463	251	1	
Wounds and Injuries	324	175	2	
Punished	322	174	7	
Diseases of the Eyes.	22	12	..	
„ of the Skin	30	16	..	
All other Diseases	255	138	9	
Total	5,489	2,978	890	483·

A glance at this table is sufficient to show that the principal source of sickness and mortality has been fever, by which every white soldier has on an average been attacked once in nine months, and more than two-fifths of the force have been cut off annually. The various types under which it appeared are thus enumerated in the Abstract above referred to:—

FEVERS.

	Admissions.	Deaths.	Proportion of Deaths to Admissions.
Intermittent Fever	948	11	1 in 86
Remittent „	1,601	739	1 „ 2
Common Continued	51	6	1 „ 8½
Total	2,600	756	1 in 3½
Annual Ratio per 1000 of Mean Strength	1,411	410·2	..

Intermittent fevers have been the source of considerable inefficiency, but have not added materially to the mortality in this Command, for though, in most years, above half the force has been attacked, only eleven cases terminated fatally, and several of these were soldiers de-

oilitated by previous attacks of the remittent fever and visceral affections so common on this coast. Indeed, the majority of those who recovered from remittent, are said to have suffered in subsequent years from attacks of intermittent; many cases of the latter may therefore be looked on merely as sequelæ of the former.

Quotidian and tertian were the prevailing forms of the disease, but the one so frequently merged in the other that it was found impracticable to make any distinction between them in the Returns. They were most common during the height of the rainy season, and were generally followed by enlargement of the spleen, liver, or other extensive visceral derangement. Elevation secured no exemption from them; on the contrary, persons in the mountainous districts of the peninsula, are said to have suffered in a greater proportion than those in the low grounds.

It is to the fatal influence of Remittent Fever, however, that this coast principally owes its insalubrious character. Under that head many cases of yellow fever (*Febris icterodes*) are included, though considerable difference of opinion exists, whether, especially when accompanied by black vomit, these ought not rather to have been considered as a distinct type than classed with the milder forms of the remittent. Having no information which would enable us to make the necessary distinction in this respect, we are precluded from adopting a different classification, even had it been deemed essential.

So generally prevalent is Remittent Fever, either in its aggravated or milder forms, on this coast, that till of late years scarcely any European ever passed twelve months without an attack; the most regular habits and the best constitution afforded no protection, nor did a residence on the coast, however long, secure any immunity. It was observed in 1825, and a few of the following years, that the appearance of ulcers, which were very common among those soldiers who indulged in intemperance, seemed to act as a safeguard against remittent fever so long as they continued open and discharged freely, but whenever they ceased to do so, that disease assailed the patient and generally proved fatal. More recently, in 1837, it was also observed that in many of the worst cases, an exudation of blood took place from the tongue, gums, nose, and anus, and, that whenever leeches were applied, the tendency to hæmorrhage was so great as to render it almost impossible to stop the effusion. Except in these respects there appears to have been little difference in the character of the disease from that which generally marks the course of yellow fever of the worst type in other Colonies. On this point, it may be proper, however, to remark, that, between 1824 and 1829, the black vomit is not mentioned in any of the Reports as one of the characteristics of the disease. This may perhaps induce a doubt in the minds of those who attach importance to that symptom, as to whether the disease in these years was genuine yellow fever, or merely the endemial remittent of the country; but as the latter is comparatively of a mild character, the cases could scarcely have been of that type, when in general one-half, and in some instances three-fourths, perished, of all those attacked.

This disease did not prove equally fatal at all the stations along the coast. At the Gambia, for instance, in 1825 and 1826, three-fourths died of all those attacked, while at Sierra Leone, during the same period, only about half of the cases terminated fatally. It was also subject to remarkable fluctuations at different periods, both as regards prevalence and severity; between 1823 and 1829, for instance, it raged in the most aggravated form along the coast for several months of each year, and cut off a large proportion of the white population annually, while in 1830 and the six subsequent years it almost entirely disappeared; scarcely a case which could be denominated yellow fever came under treatment, and the disease was not generally of a more severe or dangerous character than that which prevails annually in the Ionian Islands and upper part of the Mediterranean. Indeed, almost every apprehension of the recurrence of fever in an aggravated form had ceased, when in 1837 and 1838, without any assignable cause, it again broke out with as much virulence as during the most unhealthy epoch of the Colony, and destroyed a large proportion of the white population; but as we do not intend to carry this Report beyond 1836, it will be unnecessary at present to enter into any particulars of its ravages on these occasions.

This disease has, in most years, appeared and raged with the greatest violence during the height of the rainy season, when vegetation was most vigorous and healthy, and the low grounds, being completely flooded, were in the state supposed least favourable to the extrication of miasma; it has also been observed to diminish both in prevalence and severity as the rains moderated and the marshes began to dry, but to this rule we have to record several exceptions;—for instance, in 1823, 1829, 1837, and 1838, the disease appeared in its most malignant form in the months of February and March, during what had generally been termed the dry or healthy season, and on each of these occasions its violence declined as the rainy season advanced, and the earth became completely saturated with moisture, being directly the reverse of what had been observed in other years.

In most instances, too, the prevalence and fatal character of the disease have been commensurate with the quantity of rain; but here again the exceptions are so numerous as to strike completely at the root of all theories tending to establish that the former is a necessary result of the latter, for in 1812, 1823, and 1829, less rain fell than usual, yet fever was exceedingly prevalent, and though from 1830 to 1836 the Colony was almost free from fever, yet, with the exception of 1832, the quantity of rain in each year was about the usual average.

Attempts have also been made to connect the appearance of this disease with the circumstance of the rains commencing earlier or later, or being heavier or lighter at the commencement than usual, but without any satisfactory result, the exceptions being always too numerous to admit of any positive conclusions. The range of temperature, the fluctuations of the barometer, the direction and prevalence of the winds, have also been carefully observed, but do not seem in any way connected with it. The latest, as well as the earliest observations, all tend to show that the circumstances which call it into operation at one season or in one

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year more than another, have hitherto received no satisfactory explanation. In 1823, when the fever broke out during what was deemed the healthy season, and when none of the usual theories would account for its appearance, it was supposed by some of the Medical Officers to have originated in noxious miasma, wafted from the Bulam shore; but, so far as could be learnt, there was nothing in the character of that shore more likely to have produced the disease in 1823, than in other years which were healthy. And its subsequent appearance in 1837 and 1838 at the same season, when there was nothing to induce such a supposition as to its origin, certainly appears to indicate that there could have been but little foundation for this theory.

Elevation, at least such as is readily attainable in this Colony, seems to produce no effect either in securing an exemption from, or mitigating the character of the disease. The barrack though at the height of 400 feet, has frequently been the scene of greater mortality than the lowest situations in the town; and recently, when a body of seamen was removed to the village of Wilberforce, at an elevation of 500 feet, with the view of keeping them free from fever, they suffered even to a greater extent than on board the shipping in the harbour.

The cases of common continued fever recorded in the Abstract are comparatively few; and having proved nearly ten times more fatal than that type usually does in other Colonies, it is probable many of them partook of the remittent character, though the remissions may not have been sufficiently marked to admit of their being classed under that head.

DISEASES OF THE LUNGS.

Under this class are comprised in the preceding Table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of Lungs	15	1	1 in 15
Spitting of Blood	1	..	0 ,, 1
Consumption	7	3	1 ,, 2½
Acute Catarrh	15	..	0 ,, 15
Chronic ,,	61	5	1 ,, 12
Asthma, &c.	4	..	0 ,, 4
Total	103	9	1 in 11½
Annual ratio per 1000 of Mean Strength	56	4·9	..

The climate of this Command seems rather favourable to diseases of this class, the admissions, compared with those which occur among an equal number of troops in the United Kingdom, being as 56 to 148, and the deaths as 4·9 to 7·7. Though it was only during four or five years of the period under review that the force was sufficiently numerous to afford scope for observation, we entertain little doubt of the accuracy of this conclusion, as we find the same feature manifested in the diseases of the black troops, who are peculiarly subject to pulmonic affections in other colonies.

The most marked exemption in this class is from inflammation of the lungs, by which only 8 per thousand have been attacked annually, though the usual proportion in most other Colonies is from 30 to 40 per thousand. Consumption has also been comparatively rare; but the limited duration of European life on this coast would not perhaps in some instances afford time for so lingering a disease to become fully developed.

Catarrhal affections, particularly those of an acute nature, were also extremely rare during the period when these white troops were employed; but of late an epidemic, resembling influenza, has prevailed annually in the Command. It pervades simultaneously very extensive districts; generally commencing about the height of the dry season, when a keen, parching, easterly wind, termed the Harmattan, blows. The native inhabitants have suffered more than the troops, but it has rarely proved serious or fatal, except to aged persons, or those debilitated by disease.

DISEASES OF THE LIVER.

Under this class are comprised in the preceding Table—

	Admissions.	Deaths.	Proportion of Deaths to Admissions.
Acute Inflammation of Liver . .	9	3	1 in 3
Chronic ,, ,, . .	137	8	1 ,, 17
Jaundice	4	..	0 ,, 4
Total	150	11	1 in 14
Annual ratio per 1000 of Mean Strength	82	6	..

This class of diseases has been nearly four times more prevalent and fatal among the white troops in the Command, than in any other Colony of which the statistical details have yet been investigated. As the same feature has been manifested among the troops at Cape Coast Castle, Fernando Po, and the adjacent island of St. Helena, it seems probable that the climate of these latitudes exerts an unfavourable influence on the liver, similar to what has been observed in the tropical regions of the Eastern Hemisphere, though the number of White Troops has been too small, and the period of observation too limited to admit of positive conclusions on the subject.

DISEASES OF THE STOMACH AND BOWELS.

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Under this class are comprised in the preceding Table—

	Admissions.	Deaths.	Proportion of Deaths to Admissions.
Inflammation of the Bowels.	3	1	1 in 3
Acute Dysentery	53	21	1 „ 2½
Chronic „	317	34	1 „ 9
Indigestion	9	..	0 „ 9
Colic	25	..	0 „ 25
Diarrhoea	250	18	1 „ 14
Constipation	263	..	0 „ 263
Cholera Morbus	9	2	1 „ 4½
Total	929	76	1 in 12
Annual Ratio per 1000 of Mean Strength	504	41·3	..

This table shows that more than half the troops have been under treatment, and that the deaths from these diseases have averaged 41 per thousand of the force annually. As usual, dysentery was the principal source of mortality, and of so aggravated a character were the acute cases, that nearly two-fifths of them proved fatal, a degree of intensity which, so far as we can learn, has never been surpassed elsewhere. The previous sufferings of some of the troops while stationed on the Gold Coast, may probably have induced a certain degree of susceptibility to this disease after their arrival, but as the same feature continued to manifest itself long subsequent to that event, it may safely be assumed that other causes must also have been in operation. The Sierra Leone Commissioners, who possessed the best means of investigating the subject on the spot, were of opinion that the large proportion of salt rations had mainly contributed to the sickness and mortality; and the following statement of the marked reduction which took place in the deaths by this class of diseases immediately after the introduction of the fresh meat diet which they recommended, shows their conclusions to have been well founded.

PREVIOUS TO ALTERATION IN RATIONS.						SUBSEQUENT TO ALTERATION IN RATIONS.					
Year.	Mean Strength	By Diseases of the Stomach and Bowels.		Ratio per 1000 of Mean Strength.		Year.	Mean Strength	By Diseases of the Stomach and Bowels.		Ratio per 1000 of Mean Strength.	
		Admitted.	Died.	Admitted.	Died.			Admitted.	Died.	Admitted.	Died.
1825	571	235	32	411	56	1828	232	139	1	600	5-1/10
1826	471	256	26	543	56	1829	114	50	..	439	
1827	345	209	13	606	38	1830 } to 1836 }	42	22	1	524	
Total	1,387	700	71	Average 505	51	Total	388	211	2	Average 543	

Thus though the prevalence of these diseases remained nearly the same, their character became so much ameliorated after the more liberal use of a fresh meat diet, that the mortality from them was reduced to a tenth of its former amount; similar results have attended the recent increase in the issue of fresh meat to the Troops in the West Indies, a circumstance which seems to warrant the adoption of a similar remedy in other Colonies, whenever there is reason to believe that the character of these diseases has been influenced by a similar cause.

DISEASES OF THE BRAIN.

Under this class are comprised in the preceding Table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Apoplexy	10	6	1 in 1½
Palsy	3	1	1 „ 3
Madness	5	..	0 „ 5
Epilepsy	14	1	1 „ 14
Total	32	8	1 in 4
Annual Ratio per 1000 of Mean Strength	18	4·3	..

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This class of diseases has proved considerably more fatal than in any of the other Colonies, and, with the single exception of the Windward and Leeward Command, has also been more prevalent. Many other deaths occurred from cerebral affections, induced or aggravated by intemperance, which were not specified in the Returns, having been too rapid in their course to admit of the patient coming under hospital treatment, so that the mortality from this class must have greatly exceeded the usual average. When we take into consideration the character of the men, however, and the course of dissipation they pursued, such a result can scarcely be attributed to the climate. It may perhaps excite surprise, that where intemperance was so prevalent, no cases were reported under the head of Delirium Tremens, but at that period this disease was not distinguished in the Returns with the same care as of late years, many of the cases having been recorded under the head of Fever.

DROPSIES.

Under this class are comprised in the preceding Table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Subcutaneous Dropsy	25	2	1 in 12½
Abdominal „	11	3	1 „ 3½
Water in the Chest	3	3	1 „ 1
Total	39	8	1 in 5
Annual Ratio per 1000 of Mean Strength }	21	4·3	..

As these diseases are so often induced by attacks of remittent or intermittent fever, they have been much more prevalent and fatal than in other Commands. When the white troops were removed from this coast, several were labouring under dropsical affections who died previous to their arrival in England, or shortly after being placed on the pension list, so that the mortality here stated is considerably under what actually occurred.

We have now only to notice briefly the other classes of diseases contained in the preceding table, the relative influence of which on an equal number of troops in the United Kingdom, the Windward and Leeward Command, and Sierra Leone, may be stated as follows:—

	Annual Ratio of Admissions per 1000 of Mean Strength.		
	United Kingdom.	Windward and Leeward Command.	Sierra Leone Command.
Rheumatic Affections	50	49	56
Venereal „	181	35	64
Abscesses and Ulcers	133	204	251
Wounds and Injuries. . . .	126	129	175
Punished	8	50	174
Diseases of the Eyes. . . .	19	89	12
„ of the Skin. . . .	29	6	16
All other Diseases	44	30	138

From this comparison we learn, that in regard to Venereal, the troops at Sierra Leone enjoy a similar exemption to those in the Windward and Leeward Command, though not to so great an extent. This is principally manifested in syphilitic affections, of which, as will be seen by reference to Abstract Nos. I. and II. of Appendix, only four primary cases occurred among the white, and but three among the black troops in the whole course of 18 years; yet, so far as we can learn, no sanatory precautions were adopted to prevent the propagation of the disease.

The climate of Western Africa further resembles that of the Windward and Leeward Command in the extreme prevalence of abscesses and ulcers, for which a fourth part of the troops came under treatment annually; many of these were of a very serious nature, being apt to slough, and frequently causing such loss of substance as to create a permanent disability, and in some instances to render amputation necessary.

The large proportion who underwent corporal punishment in this, as compared with the Windward and Leeward Command, or the United Kingdom, may be regarded as a necessary consequence of the description of troops employed, who were principally of that class with whom all milder modes of punishment had been found ineffectual, before they were drafted from other corps. So severely, too, was it found necessary to inflict this punishment, that in seven instances death ensued before the patient came out of hospital. Six of these, however, occurred at the Gambia, where, as the majority of each detachment generally perished within three months, it is probable their fate may only have been accelerated—not induced—by the punishment.

The proportion of unclassified diseases is much higher than in the other Commands; the excess arises from 166 cases of diseased spleen, which was exceedingly prevalent at all the stations; indeed, enlargement of that organ seems to have been an almost invariable consequence of the fever of this coast, among those who were fortunate enough to escape with their lives.

Having thus stated the aggregate amount of sickness and mortality among the white troops throughout this Command generally, it becomes of importance to determine what portion occurred at each of the subordinate stations, that a more unhealthy character may not be assigned to the Sierra Leone Colony than it really merits.

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It was only in 1825 and 1826, when no barrack accommodation could be procured for them elsewhere on the coast, that white troops were detached to the Gambia and Isles de Loss, and it is consequently from the medical occurrences of these two years alone, that we are left to form our conclusions as to the influence of the climate of these stations.

GAMBIA.

THE first detachment of white troops arrived in the latter end of May 1825, just as the rains commenced. It consisted of 108 men, being all for whom accommodation could be procured. Between that date and the 21st September of the same year, the casualties among them were as follows:—

Gambia.

Died of remittent fever	74
Of other diseases	13
Total died	87
Remained alive at the end of 4 months 21	21

Owing to the want of sufficient accommodation on shore, another detachment of about 91 men was, during this period, kept at sea on board the *Surrey* transport, and while there, did not lose a man; but when, towards the end of September, room was provided for them in the barrack by the death of four-fifths of their comrades, they were landed, and made up the force to about 112, of whom, between that period and the 21st December,—

There died of fever	61
Of other diseases, including 6 from fever } following punishment	12
Total died	73
Remained alive on 21st December	39

The force having now been reduced by deaths to 39, most of whom were in the last stage of disease, another body of about 200 Europeans was sent to supply their place, and that too, as before, at the commencement of the rainy season. It does not appear whether they were all landed at once, or a portion of them kept on shipboard, as on the previous occasion, for want of accommodation; but ere 3 months had elapsed, half the number were in their graves. The deaths reported from 21st June to 21st September of that year were—

Of fever	85
Other causes	13
Total in 3 months	98

The strength appears to have been by this time reduced to 108, of whom there died from 21st September to 21st December—

Of fever	14
Of other diseases	4
Total	18

Thirty-three of the survivors who were suffering under chronic affections of the liver, spleen, and other viscera, were then removed to head quarters; of the remainder only one died, between January and July of the following year, when all the white troops were withdrawn from the station.

During the whole of this dreadful mortality, a detachment of from 40 to 50 black soldiers of the 2nd West India Regiment only lost one man, and had seldom any in hospital.

The extent of this mortality among the white troops, cannot well be defined by the usual statistical formula of ratios, seeing that the number who died in the course of the year was more than double the average amount of the whole force; it is sufficient to say, that between the end of May 1825 and December 1826, a period of only 19 months, 279 perished out of a force of which the number on shore seldom exceeded 120, and was sometimes even as low as 40.

The medical documents afford little information in regard to any of the fatal diseases, except fever, the extreme virulence of which may be estimated from the following statement of the proportion of admissions to deaths during the undermentioned periods:—

PERIODS.	Admitted.	Died.	Proportion of Deaths to Admissions.
June to September 1825	92	74	1 to $1\frac{1}{4}$
Sept. to December „	77	61	1 „ $1\frac{1}{4}$
June to September 1826	109	85	1 „ $1\frac{1}{4}$

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Thus only about a fifth part of those attacked came out of hospital alive; the disease is stated by all the Medical Officers to have been of the most malignant form, yielding to none of the usual remedies, and even in the event of recovery, leaving the patient with a shattered constitution for life.

This frightful mortality must no doubt have been aggravated by the intemperance, vice, and indiscipline of every kind which prevailed among the troops at this station, who, reckless of consequences, and regardless of punishment, rushed into the most fearful course of dissipation, and endeavoured, by keeping themselves in a state of constant excitement from inebriety, to obliterate the recollection of past, and the apprehension of future sufferings; but even sober habits, and the strictest regard to discipline, proved totally inadequate to do more than secure a very partial exemption from the mortality of this coast, as is but too clearly exemplified by the fate of that portion of the force stationed at—

THE ISLES DE LOSS.

The Isles de Loss. THESE islands, in consequence of their distance from the mainland, their elevated situation, the rocky nature of the ground, and total absence of the vegetation and marshes to which the unhealthiness of the coast was generally attributed, had obtained a character for salubrity, which unfortunately was by no means justified by experience.

Deceived by the supposed advantages of its situation, General Turner selected the centre island as a suitable station for a detachment of recruits voluntarily enlisted at Chatham, whom it was deemed advisable to separate from the commuted punishment men, to prevent their initiation into habits of intemperance and debauchery. They are described as being generally men of good character, exemplary conduct, and with little inclination to inebriety, in which, however, had they been ever so much inclined, they had no opportunity of indulging, as spirits could not be procured in the island.

Had there been a possibility of Europeans enjoying health on this coast, this was the station, and these were the circumstances under which it was most likely to be attained. The following record shows how miserably that expectation was disappointed.

The detachment arrived at the Isles de Loss on the 23rd of February 1825, and consisted of 103 men; the deaths among them during each of the quarters after their arrival were—

		Died.	Total Died.
21st March to 20th June 1825	of fever . .	1	1
21st June to 20th Sept. „	of fever . .	23	23
21st Sept. to 20th Dec. „	{ of fever . . other diseases	{ 7 3	10
21st Dec. 1825 to 20th March 1826	{ of fever . . other diseases	{ 2 2	4
21st March to 20th June „	{ of fever . . other diseases	{ 0 1	1
21st June to 20th Sept. „	{ of fever . . other diseases	{ 21 2	23
Total deaths in 18 months			62
Invalided to England during same period			21
Total			83
Remained of original force			20

In the end of the year such of the Europeans as survived were withdrawn, scarcely any being fit for duty; and the fate of this detachment has afforded a useful though melancholy instance, of how little avail are supposed advantages in locality, or even the temperance and good conduct of a garrison, in contending against a climate so inimical to the constitution of Europeans.

The deaths at these two stations being deducted from the general mortality throughout the whole Command during 1825 and 1826, and a corresponding reduction made in the strength, the relative mortality of each station on the average of these two years will have been nearly as follows:—

Sierra Leone . .	650	per thousand of force employed.
Isle de Loss . .	600	„ „
Gambia . . .	1,500	„ „

and making allowance for the mortality at the subordinate stations, that at Sierra Leone alone, taken on the average of the whole 18 years, will be reduced to about one-third annually of the white troops employed.

It may be proper to remark that the troops at Sierra Leone, like those at the Gambia, were all commuted punishment men, who indulged in every possible vice, intemperance, and debauchery; but being at head quarters, they may possibly have been kept under stricter control than at the Gambia, where they were 500 miles distant from any force likely to overawe them.

This concludes all the observations we propose offering in regard to the sickness and mortality among the white troops in this Command. We shall next proceed to notice the Statistical details of the black troops, of which the force on this coast is now principally composed.

BLACK TROOPS.

THESE troops have generally been recruited from the slaves captured by our cruisers, and liberated at Sierra Leone. None of the resident native population, nor those who occasionally come from the interior show any disposition to enlist; and even the liberated slaves are but little disposed to do so, after having been a short time located in the Colony. It is only when recently landed, and ignorant of any mode of procuring a subsistence, that they can be induced to adopt a profession, of which the active duties and necessary restraints are much at variance with their habits and disposition.

It might have been expected that on the coast of his native continent, and with an income sufficiently ample to procure all the necessaries and even luxuries of life, the Negro soldier would be exempt from any greater degree of mortality than other troops when serving in their native country. This expectation, however, is by no means realized in the results exhibited by the following Table:—

Years.	Mean Strength.	Admissions into Hospital.	Deaths per Medical Returns.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1819	272	188	8	691	29.4
1820	301	220	8	731	26.6
1821	294	213	8	724	27.2
1822	281	176	4	626	14.2
1823	271	239	8	882	29.5
1824	297	269	6	906	20.2
1825	266	170	1*	639	3.7
1826	468	276	2*	590	4.3
1827	749	773	47	1,032	62.8
1828	765	755	16	987	20.9
1829	487	310	13	637	26.7
1830	303	218	5	719	16.5
1831	328	279	21†	851	64.
1832	329	189	8	574	24.3
1833	500	519	10	1,038	20.
1834	471	367	16	779	34.
1835	578	492	11	851	19.
1836	621	504	36	812	58.
Total	7,581	6,157	228
Average	421	342	12 $\frac{2}{3}$	812	30.1

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Table III.
Showing the Admissions into Hos-
pital, and Deaths
among the Black
Troops in the Sierra
Leone Command.

Thus the mortality during the last 18 years has averaged about 30 per thousand exclusive of sudden and accidental deaths not stated in the Medical Returns, and which would probably have increased the ratio to 32 per thousand annually.

The ratio of admissions corresponds very nearly with what has been observed among the same class of troops when employed in other Colonies, and does not materially exceed the proportion usual in native corps; but it is otherwise with the mortality, as will be seen by the following comparison:—

Mortality of Dragoon Guards and Dragoons in the United Kingdom	15 per 1000 annually.
,, Maltese Fencible Corps	9 ,, ,,
,, Hottentot Cape Corps	11 ,, ,,
,, Madras Native Troops	13 ,, ,,
,, Bengal Native Troops	11 ,, ,,
,, Royal African Corps	32 ,, ,,

Thus, at the lowest computation, the mortality of the black troops serving in the Colony has been twice, and in some instances more than thrice, as high as among other troops serving in their native country, though from the recent formation of the African Corps most of them are considerably under the average age of soldiers. The ratio will be found exactly the same as among the black troops employed in Jamaica and Honduras; and though less than in the Bahamas and Windward and Leeward Command, in the proportion of 32 to 41, yet as a very large proportion of the force there was of advanced ages, while in the African corps scarcely any soldier exceeded 25, the former ratio may be held to correspond very nearly with the latter; consequently, on his own native coast, even with all the advantages enjoyed by the British soldier, the Negro exhibits a liability to mortality for which it is extremely difficult to account.

There is one circumstance, however, which, independent of climate, many have in some measure contributed to this. As already stated, recruits can seldom be obtained except among the recently liberated slaves, whose constitutions have no doubt, in many instances, been deteriorated by their previous sufferings on ship-board, and though a due exercise of medical discrimination at inspection is in general sufficient to guard against the introduction of sickly

* There can be no doubt that in 1825 and 1826 several deaths took place among the Black Troops, besides those here recorded. One of the Medical Reports refers to five deaths in the former of these years; but as the diseases are not stated, and the names cannot be distinguished from those of the White Troops, we have preferred giving the numbers precisely as they are entered in the quarterly returns from which the above table is framed.
† With these are included 11 who died of wounds received in action at the Gambia.

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or unfit persons into the service, yet even the most scrupulous care must be inadequate to detect those latent diseases of which the seeds may have been sown in the ill-ventilated holds of slave-ships, and which may prevent the recruit from ever becoming a healthy soldier. To obviate this, it was at one time proposed, that none should be enlisted till their constitutions had been tested by a residence of some months in the colony; the proposition was, however, rejected, because where the necessities of life could be obtained so easily the liberated slave would soon succeed in earning his livelihood in some way more congenial to his habits and feelings, than submitting to the restraints and discipline of a military life.

Making all due allowance, however, for this probable source of unhealthiness among the troops, there is abundant evidence that the climate is by no means favourable even to the negro race. In the years 1818 and 1819, as previously stated, 1,222 black soldiers were discharged at Sierra Leone, not in consequence of age and infirmities, but owing to the reduction of their corps. They are described as having been mostly in the prime of life, and of quiet, sober, industrious habits; each received a pension of from 6*d.* to 8*d.* per day, which, with an allotment of land and the produce of their daily labour, placed them in comparative affluence; yet, under all these favourable circumstances, at the census of April 1826 they were reduced by death to 949, making a total mortality of 273 in eight years, or in the ratio of 31 per thousand annually, which corresponds to the mortality among pensioners in this country about the age of 55, whereas these men could not have averaged above 40.

The following Abstract of the mortality among the negro colonists exhibits similar results as to the unhealthy character of the climate on a more extended scale:—

	Arrived.	Alive, including Children, in 1826.	Reduction in Numbers.	Increase in Numbers.
Liberated slaves landed between forma- tion of Colony and 1826	17,883	10,716	7,167	
Africans from Nova Scotia, landed in 1792	1,131	578	553	
Maroons from Jamaica, landed in 1800	550	636	..	86
Total	19,564	11,930	7,720	86

Thus, contrary to the usual tendency in a state of freedom, the Black population during the above period very materially diminished in number. We are quite aware that it would be erroneous to attribute this entirely to death, some of the liberated Africans may have removed beyond the limits of the colony, and others, there is also good reason to believe, have been carried off from Free Town and again reduced to a state of slavery; but, even making all due allowance for these possible contingencies, the climate appears to have been nearly as unfavourable to the civil as the military portion of the negro population.

Regarding the diseases by which this mortality among the civil population was occasioned, we possess no information; those of the black troops will be found in Abstract No. II. of Appendix, of which a summary is given in the following Table:—

Table IV.
Showing the principal diseases among the Black Troops in the Sierra Leone Command.

	ADMISSIONS.		DEATHS.	
	Total among whole Force in 18 Years.	Annual ratio per 1000 of Mean Strength.	Total among whole Force in 18 Years.	Annual ratio per 1000 of Mean Strength.
By Fevers	405	54	18	2·4
Eruptive Fevers	396	52	52	6·9
Diseases of the Lungs	390	51	48	6·3
" Liver	28	4	8	1·1
" Stomach and Bowels	994	131	40	5·3
" Brain	45	6	12	1·6
Dropsies	39	5	2	·3
Rheumatic Affections	494	65	6	
Venereal	888	117	..	
Abscesses and Ulcers	810	107	5	
Wounds and Injuries, exclusive of those received in action	447	59	6	2·2
Punished	331	44	..	
Diseases of the Eyes	145	19	..	
" Skin	458	60	..	
Wounds in action at the Gambia in 1831	75	10	11	1·4
All other Diseases	212	28	20	2·6
Total	6,157	812	228	30·1

Fatal as the fevers of this colony have proved to the white troops, the blacks have been but little affected by them; indeed, the attacks have been fewer, and the deaths have not materially exceeded the proportion among an equal number of white troops in the United Kingdom or other temperate climates. Though fevers are much more frequent and fatal among the whites than in the West Indies, the reverse is the case with the blacks, as will be seen by the following comparison:—

	Per 1000 of Black Troops Annually.	
	Treated for Fevers.	Died by Fevers.
In Windward and Leeward Command .	168	4.6
Jamaica	Not stated.	8.2
Honduras	253	4.4
Bahamas	318	5.6
Sierra Leone Command	54	2.4

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This exemption extends not to one type of the disease only but to all, and seems to establish that the susceptibility of the Negro to febrile agency increases when removed from his native land.

A considerable portion of the mortality will be found under the class of Eruptive Fevers. This occurred entirely from small pox, and principally in the years 1827 and 1836, under the following circumstances :—

In the first quarter of 1827 about 250 recruits had been received from slave ships, in one of which small pox had appeared prior to its arrival. The first case among the military occurred on the 5th of March in one of the recruiting parties of the 1st West India Regiment, and although every precaution was adopted, by separation of the infected, to arrest the progress of the disease, it also broke out on the 24th of April among the black soldiers of the Royal African Corps. At this period, unfortunately, vaccine lymph could not be obtained in the colony, but all those who had not distinct marks either of cow pox or small pox were immediately inoculated, a precaution which seems to have been attended with beneficial effects, as the deaths were confined to the recruits recently taken from the slave ships, and the disease disappeared before the end of the year.

The colony did not suffer again from this disease till March 1835, when it was introduced by a caravan of gold traders from the interior. It spread rapidly among the civil population, who were in a great measure unprotected in consequence of their indolence and unwillingness to have their families vaccinated, but did not appear among the troops till 11th May, and all the cases which then occurred were so unusually mild, that only two deaths took place out of 45 attacks. At the close of the year the disease seemed almost extinct, but in February and March following, without any recognizable cause, it assumed a very aggravated form and raged with such virulence as to cut off 10 or 12 of the population daily. Some severe cases having occurred among the troops, it was again deemed advisable to inoculate all who did not bear marks of having previously had the disease. Towards the middle of the year the violence of the epidemic began to moderate, but it did not become extinct in the colony till November or December. Its intensity among the troops was very nearly alike in the epidemics of 1827 and 1836; in the former 30 died of 146 attacked, and in the latter 13 out of 72.

The black troops do not suffer half so much from diseases of the lungs as in the West Indies or other colonies in which they are employed, indeed the proportion of admissions and deaths is under what is usual among white troops in the United Kingdom; consumption in particular is more rare, only four per thousand being attacked by it annually.

The negro soldier does not appear to suffer materially from diseases of the liver which affect the white troops to such an extent on this coast, but is frequently subject to diseases of the bowels, particularly diarrhoea and dysentery, whereof many cases prove fatal. They occur principally among the recruits who contract them on board the slave ships, or in the places of confinement previous to embarkation, and continue to suffer, in a greater or less degree, for a year or two after their arrival in the colony. As an instance of this it may be stated that of eight who died from them in 1836, five were soldiers under one year's residence, two under two, and one under three years. It seems probable that the change experienced by the Negro, from the vegetable or farinaceous diet commonly used among tropical nations, to one principally composed of animal food, and that of a very stimulating description, may also have a considerable effect in inducing this susceptibility.

The other classes of diseases differ but little from what has already been observed in the West India Commands, with the exception of venereal affections which are six times, and diseases of the skin which are ten times as prevalent. The latter, however, have principally occurred among recently-enlisted Negroes who are frequently labouring under slight eruptions when landed from slave ships.

Among the unclassified diseases is one which has been of frequent occurrence among the black troops in this colony, viz., Dracunculus or Guinea Worm, of which 101 cases are recorded between 1822 and 1828. These are all stated to have occurred among soldiers recently arrived from stations on the Gold Coast, where the disease was exceedingly prevalent, owing, as was supposed, to the bad quality of the water. In several instances where the worm was broken in the progress of extraction, deep-seated ulcers ensued and the cure was very tedious and difficult. Some cases occurred also in the same years among the white troops, but they were not so general as among the Negroes.

Having concluded these details in regard to the sickness and mortality at Sierra Leone, we shall now proceed to notice the medical occurrences in the Cape Coast Command.

II. CAPE COAST COMMAND.

*Western Coast
of Africa.*

II.

Cape Coast Com-
mand.

In this Command were comprised the stations along what is termed the Gold Coast, extending from Dixcove to Accra, a distance of 150 miles. Since the end of 1828, however, when Fernando Po was selected as a settlement, none of them have been garrisoned by British troops, and it is only necessary therefore to take a brief review of the occurrences antecedent to that period, in order to complete this record of the mortality and sickness among the troops in Western Africa.

The settlements on this coast were ceded to the British government by the African Company in 1821: they have little territory attached to them beyond the ground on which the forts stand, and as far as their guns will reach. Our information being very incomplete, we can only offer the following brief description of them.

Cape Coast Castle.

Cape Coast Castle, the principal station, lies in Lat. $5^{\circ} 6' N.$, Long. $1^{\circ} 10' W.$, nearly 1000 miles to the East and South of Sierra Leone, and is built on a rock about 50 feet high, jutting into the sea, so that its walls are washed by the surf which rolls impetuously along the coast, and adds to the natural moistness of the atmosphere. The fort or castle is of a quadrangular shape, with bastions at each angle; the barracks are described as comfortable, well ventilated, and affording accommodation for 16 officers and 200 men; but having been occupied in 1825 and 1826 by considerably more than that number, they were extremely crowded. The castle is a place of little strength, the walls being out of repair, and commanded in every direction by the adjacent heights. The water for the garrison is obtained from tanks, in which the rain from the buildings is collected.

This part of the coast is not mountainous, but, at the distance of a quarter of a mile from the shore, a succession of small hills rise to the height of 150 or 200 feet, which, with the intervening valleys, are covered with forest trees and luxuriant vegetation throughout the year. The soil on the heights is of a siliceous nature, and in the valleys consists of a rich alluvial deposit. There is a salt pond about a mile distant, but no swamps or marshes exist in the vicinity, nor any river nearer than 5 or 6 miles.

Immediately under the walls of the fort is a native town containing about 5000 inhabitants; it is very much crowded, badly built, and, from its extreme filthiness, is supposed in some degree to have contributed to the unhealthiness of the garrison.

Dixcove.

Sixty miles to the west of Cape Coast Castle is a small fort called Dixcove, principally of importance as affording greater facilities for landing than the other places along the coast, which are exposed to the action of a heavy surf. About 10 miles to the west of Cape Coast Castle is another fort called Annamaboe, regularly constructed of stone, and possessing considerable capabilities of defence.

Annamaboe.

Both these stations were occupied by subalterns' parties till 1827, when, in consequence of their unhealthiness, the troops were withdrawn, and the forts given up to the civil residents.

Accra.

Sixty miles to the east of Cape Coast Castle is the settlement of Accra, in the vicinity of which the country is open and level, free from bush or underwood to a considerable distance from the sea, and presenting the appearance of an extensive park. A small and rudely constructed fort protects the settlement, to which a detachment was generally furnished from Cape Coast Castle. The soil in the vicinity is sandy and mixed with vegetable mould; there are no swamps, no river nearer than 8 miles, nor any of those noxious agencies which are generally supposed to contribute to insalubrity; yet, so fatal did the station prove that in 1827 it became necessary to withdraw the troops and leave it in possession of one of the resident merchants, with local military rank, who now hires a few natives for its defence.

Climate.

The climate of this coast is similar to that of Sierra Leone, extreme humidity being its principal characteristic. The rains commence in the end of April or beginning of May, but only continue severe till July or August; they are then succeeded by dense fogs, with which the air continues loaded till October, when the sky begins to clear, and the dry season follows. These fogs are described as being particularly injurious to the constitution of Europeans; the period of their continuance and that of the preceding rains is deemed the unhealthy season, while the dry season is termed the healthy one. Tornados generally usher in and carry off the rains, and, as at Sierra Leone, Harmattans prevail during a part of the dry season. There is a sea and land breeze along the coast; the sea breeze sets in about 8 or 9 in the morning from N.N.W. and continues till 5 P. M., when it is succeeded by the land breeze from the S.E. During the continuance of the latter, the air is generally so loaded with moisture as to produce a sensation of chillness greatly beyond what is indicated by the thermometer, and to create nearly the same dampness as if there had been a slight shower.

Notwithstanding its greater proximity to the equator, the average temperature of this coast does not appear materially to exceed that of Sierra Leone, and the sudden transitions from heat to cold are not so frequently the subject of complaint.

Troops employed.

While the African Company held the forts in this Command, they maintained a force of 120 natives for their protection, under European officers who also followed the occupation of traders. When the British government took possession, these troops were re-enlisted into

the service, and increased to 200 by native recruits. Owing to a war with the Ashantees in 1823, and the loss of Sir Charles M'Carthy with the greater portion of his army in the commencement of the following year, it was found necessary to send a considerable force of white troops to the coast. For this purpose a part of the Royal African Corps, formerly disbanded at the Cape of Good Hope, was re-embodied and augmented by drafts of "commuted-punishment men" from Europe, so that here, as at Sierra Leone, the greater portion of the white troops consisted of the most degraded class of soldiers. So fatal did the climate prove to them, that in the end of 1826 the few who survived were withdrawn, and their place supplied by two companies of natives. On the abandonment of Accra and Annamaboe, these were reduced to one, which, in October 1828, was transferred to Fernando Po, and no regular troops have since been employed on the coast.

The rations of the white troops consisted merely of 1 lb. of salt beef or salt pork, and 1 lb. of bread daily; it is stated by the Sierra Leone Commissioners that, for a whole year previous to their removal, the troops had not received a single ration of fresh meat, the water used by them was exceedingly bad, and vegetables scarce and of very indifferent quality.

In 1824 and 1825 the troops, having to repel the aggression of some of the neighbouring tribes, were exposed to much harassing duty; but, after the re-establishment of peace, there was nothing in the nature of their employment materially different from that in other garrisons, or which was at all likely to have subjected them in so remarkable a degree to the inroads of disease.

The admissions of the white and black troops not having been separated in the Returns, it is impossible to show the extent of sickness among the former during their employment on this coast, but the mortality is stated in the Medical Returns to have been as under:—

Year.	Strength of Troops in each Quarter.	Mean Strength of each Year.	Died of that Strength.	Ratio of Deaths Annually per 1000 of Mean Strength.
1823	1st Qr. 11	39	10	256·4
	2nd „ 11			
	3rd „ 11			
	4th „ 123			
1824	1st „ 120	225	221	982·2
	2nd „ 280			
	3rd „ 300			
	4th „ 200			
1825	1st „ 200	255	138	541·2
	2nd „ 700			
	3rd „ 60			
	4th „ 60			
1826	1st „ 103	111	52	468·5
	2nd „ 115			
	3rd „ 128			
	4th „ 97			
Total . .		630	421	668·3

Thus, on the average of these four years, two-thirds of the white troops died annually, and so great was the mortality in 1824, that the deaths nearly equalled the mean strength of the garrison. It has on this account been necessary to enumerate the strength in each quarter, as the troops were cut off with such rapidity, that few lived to complete one year in the Command. In illustration of this, it is only necessary to refer to the fate of some of the first detachments, as given by one of the medical officers on the spot, in a Report dated December 1824.

“ Out of the first detachment of European troops, which arrived in April 1822, under the command of Captain Donald, only *one* survives. Out of the second detachment of 129, which arrived in October 1823, under the command of Captain L'Estrange, only a few remain, and their constitutions are so destroyed by repeated attacks of intermittent and remittent fevers with dysentery, that their existence cannot be long. Out of a third detachment of 131 disembarked here on the 12th of March 1824, under the command of Lieutenant M'Combie, from the Cape of Good Hope, the majority died, a few months after landing, from remittent fever and dysentery depending on diseased liver. Out of the fourth detachment, which arrived on the 20th March last in the brig Anne from England, consisting of 33 men (chiefly non-commissioned officers) under the command of Lieutenant Mollan, only *six* are now alive. Out of the fifth detachment, which arrived from England in H.M. ship Thetis on the 4th of July last, and consisting of 101 men, 45 have already died. Out of the sixth detachment of 11 Artillerymen, who arrived here on the 17th of July 1824, from England, only one is dead, but I apprehend that ere long most of them will be on the sick list.”

It was not at Cape Coast Castle only that the white troops suffered so severely, all the stations along the Gold Coast proved equally fatal to them. The locality of Accra being apparently free from all those agencies which, at the other stations, were supposed to have induced disease, 50 convalescents were sent there, but they gained little by the change, most of them having perished in a very short time. Detachments which landed there in good

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II.
Cape Coast Command.

Rations and Diet.
Duty and Employment.

Table V.
Showing the Deaths among the White Troops serving in the Cape Coast Command.

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mand.

health were equally unfortunate, and, notwithstanding its supposed salubrious character, this station, like the others, proved the grave of almost every European who visited it.

It is true that the years in which white troops were employed on this coast were singularly unhealthy, and it may also be probable that the vice and intemperance prevalent among a degraded class of soldiers added considerably to the sickness and mortality, but there is unquestionable evidence that in every year, and to all classes of Europeans, the climate proves extremely fatal; for instance, out of 21 merchants who arrived in 1822, four only survived in 1825; out of 77 officers who arrived at various times between 1822 and 1827, no less than 37 died before quitting the Command; while of 42 women and 67 children landed with a detachment in October 1823, 29 women and 41 children perished in less than 15 months.

On referring to earlier years, before the coast was garrisoned by our troops, we find that of 40 Europeans in the service of the African Company, 15 died and 4 returned to England in bad health, in the years 1819, 1820, and 1821; and according to some Returns extending back to the year 1812, the loss of life appears to have been much the same, so that in the healthiest years and under the most favourable circumstances, the mortality may be rated at from 12 to 13 per cent. annually.

Having thus shown the fatal effect of this climate on the white residents, both civil and military, we shall next endeavour to point out the diseases by which the mortality among the troops was occasioned; and, as our information on this subject is not sufficiently ample to require a separate abstract, we submit the following summary, which is all that can readily be ascertained from the Medical Returns.

Table VI.
Showing the principal fatal diseases among the White Troops in the Cape Coast Command.

Classes of Diseases.	Specific Diseases.	Died by each Disease.	By each class of Diseases.	Ratio of Deaths Annually per 1000 of Mean Strength.
Fevers	{ Febris Intermittens	15	} 241	382·6
	„ Remittens. . . .	224		
	„ Cont. Com. . . .	2		
Diseases of Lungs .	Hæmoptysis	1	1	1·6
„ Liver . .	{ Hepatitis Acuta	6	} 9	14·3
	„ Chronica	3		
„ the Bowels	{ Dysentery	135	} 139	220·6
	Diarrhœa	4		
„ Brain. .	Epilepsia	1	1	1·6
Dropsies	Ascites	2	2	3·2
Rheumatic Affections	. . . .	..	1	} 23·8
Venereal „	. . . .	..	1	
Abscesses and Ulcers	. . . .	..	1	
	. . . .	..	1	
Wounds and Injuries.	{ Vulnus Incisum	1	} 7	23·8
	„ Sclopitorum	3		
	Amputatio	1		
	Fractura	2		
Punished . . . .	. . . .	..	5	20·6
Cause unknown . .	. . . .	..	13	
		Total .	421	665·3

On comparing this table with that which shows the mortality by the same classes of diseases among the white troops in the Sierra Leone Command, the influence of fever is found to have been much the same in both. It is diseases of the bowels which have rendered this part of the coast so much more fatal to Europeans, nearly one-fourth of the troops having perished from them.

As affections of the liver are found to have been much more prevalent than on any other part of the coast, it is possible some of these dysenteric cases may have had their origin in derangement of the functions of that organ, but that this cause could only have operated in a very minor degree to induce so great a mortality, may be inferred from the circumstance, that though 37 officers perished on the coast during the period under review, not one of their deaths took place from diseases of the bowels, all were caused by remittent fever, with the exception of one from chronic hepatitis, and a few killed in action or by accidents.

As that rank was so exempt from a class of diseases which, if attributable to climate, ought to have affected all in nearly an equal degree, we are led to conclude with the Commissioners who had the advantage of investigating the subject on the spot, that much of the sufferings of the troops in this respect originated from the injurious influence of salt and innutritious diet and bad water, on bowels already relaxed by a tropical climate; and we may cite this as another instance, in addition to the many adduced in the course of these reports, of the same agency having, under similar circumstances, operated prejudicially to the health of the soldier.

Here, as at Sierra Leone, the lungs seem to have been rarely the seat of disease, only one death took place from affections of that organ while the white troops were employed, and that was a case of hæmoptysis.

The admissions of the white and black troops having been included together in the Returns, the proportion of deaths to recoveries in different diseases cannot be accurately determined, but we find it stated in the Medical Reports that on the average of the seven years antecedent to

1826, 1 in $2\frac{1}{2}$ of the cases of remittent fever proved fatal, but that in 1824, when it was more than usually virulent, the proportion was as high as 1 in 2.

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mand.

Of the sickness and mortality among the Black Troops on this part of the coast, we can offer no specific details; their number during the period under review was about 250, and the mortality is said to have averaged nearly 2 per cent. annually; this is lower than at Sierra Leone, probably from the circumstance of their being natives of that part of the country, instead of captured negroes originally brought from a distance in the interior, whose constitutions may not be so well adapted for the moist climate of the sea coast.

Black Troops.

We shall conclude the medical statistics of this part of the coast by a brief notice of the station of

FERNANDO PO.

The extreme unhealthiness of all our possessions along the Gold Coast having led to the troops being withdrawn in October 1828, this island was selected as a military station from its supposed salubrity, and the facility it afforded for the protection of trade, and the location of slaves captured by our cruizers in the vicinity.

Fernando Po.

It lies in the Bight of Biafra, 500 miles to the East of Cape Coast Castle, and separated, by a strait 20 miles in breadth, from the nearest point of the African Continent. It is about 120 miles in circumference, and, like that part of the mainland adjacent, is exceedingly mountainous, Clarence Peak, the most elevated point, attaining the height of several thousand feet. The southern extremity is also intersected by several steep mountains, varying from 1000 to 3000 feet, which, with the intervening valleys, are covered with dense forests of large and valuable timber, and watered by numerous rivulets.

Clarence Town, the principal settlement, lies in lat. $3^{\circ} 53' N.$, long. $7^{\circ} 40' E.$, and is built close to the sea upon an elevated plain from 100 to 200 feet in height, embracing two small peninsulas, Point William and Point Adelaide, with a semicircular space extending about a mile in length, and forming a cove well adapted for shipping. All the ground in the immediate vicinity is covered with forest trees and jungle, except to the extent of about six square miles, which was partially cleared on the formation of the settlement. The soil, which is generally argillaceous, resting on a bed of freestone, gives proofs of abundant fertility when cultivated. The water, both of spring and brook, is of the best quality, and there are no marshes in the vicinity, the hilly nature of the ground not admitting of their formation.

The wet season commences at the latter end of May, and continues till the end of November; the annual quantity of rain and the temperature are much the same as at the other stations on the coast. The sea breeze is regular; but the land breeze generally deficient, being intercepted by the high range of mountains on the mainland. At this settlement part of a company of black troops belonging to the Royal African Corps was stationed with some civil servants of government to superintend the captured negroes, and a few European mechanics to aid in the erection of barracks and other buildings.

The only information we have been able to obtain, in regard to the influence of the climate on these individuals, is derived from the following sources:—

By the evidence of Capt. Vidall, R.N., before the Parliamentary Commissioners for enquiring into the State of the Settlements along this Coast, it appears that of 40 European mechanics, sent out under his superintendence to form the settlement in 1827 and 1828, four died in the course of a few months.

In the following year Dr. Cowan, the medical officer then in charge, reported that all the year, but more particularly during the rainy season, sickness was very common among the Europeans, and that there was rarely an instance of recovery among the numerous English mechanics who had suffered from the fever. The few who did recover had to be sent home immediately, as the only sure means of permanently re-establishing their health. He adds, "How to account for the fever being so destructive I am quite at a loss, as the face of the country does not carry an unhealthy appearance, on the contrary, I should almost be led to pronounce it salubrious, did I not know the reverse. I believe it to be as prejudicial to the European as could well have been selected for a settlement. Fever is not the only complaint existing in the island, we have here some of the worst ulcer cases I have ever seen, not among the black soldiers only, but the white people and seamen of the shipping."

In 1830 the number of whites, including officers, was reduced to 16 or 18. Colonel Edward Nicholls then arrived, bringing with him 31 Europeans, principally mechanics, of whom 19 died in that year, besides 4 out of 12 shipwrights who came during the previous year to the settlement.

These facts appear sufficient to show, that though the nature of the locality is so different, the climate of this island proves equally inimical to the constitution of Europeans as the other stations along the coast. Since 1831, when the medical superintendence of the colony devolved on a surgeon of the Navy, there is no information in the records of the Army Medical Department regarding the health of the settlers; and in 1834 the detachment of black troops was withdrawn, and the island is no longer occupied as a military station.

Western Coast
of Africa.
Summary.

SUMMARY.

We shall conclude these details in regard to the extent of sickness and mortality throughout the stations in Western Africa by the following Summary of the loss of the white troops while employed on the coast. The successive detachments which arrived, and their fate may be thus briefly stated:—

1st. Detachment arrived in 1822 at Cape Coast under Captain Donald	11
2nd. Detachment arrived in 1823 at Cape Coast under Captain L'Estrange	129
3rd. Total Strength of Detachments stated in "Report of the Sierra Leone Commissioners," to have arrived on the Coast in 1824	283
4th. Ditto arrived at Cape Coast and Sierra Leone in 1825, as stated in said Report	1,154
5th. Recruits voluntarily enlisted who arrived separately	108
Total	1,685

Thus disposed of—

Died at Cape Coast and subordinate stations, from 1823 to 1827 inclusive, per Medical Reports	421
Died at Sierra Leone and subordinate stations between 1825, when the Head Quarters of the Royal African Corps arrived from Cape Coast, and 1830, when the White Troops ceased to be employed	860
Unaccounted for, supposed to have died from accidents or sudden deaths, and therefore not included in the Medical Returns	17
Total Died.	1,298
Invalided from both Commands, and accounted for in the following section	387
Total as above.	1,685

SECTION II.

On the extent of Invaliding among the Troops serving on the Western Coast of Africa.

Invaliding.

ON this head our information is very meagre, and refers to the white troops only. It appears by one of the Returns of the Adjutant General to the Committee on Military Expenditure, that between 1825 and 1830, when the Europeans were finally withdrawn, the number sent home invalided in each year was as follows:—

Year.	Number Invalided.
1825	14
1826	111
1827	50
1828	44
1829	160
1830	8
Total	387

Of these, 17 died on their passage, and 157 were discharged as unfit for further service on account of the diseases stated in the following Table:—

Table VII.
Showing the Diseases or Causes of Disability of White Troops Invalided from Western Africa.

Diseases or Causes of Invaliding.	1825	1826	1827	1828	1829	1830	Total.
Dropsies.	2	22	1	3	3	..	31
Dysentery and Hepatic Affections	3	25	26	5	..	..	59
Fractures, Wounds, and Hernia	2	9	1	2	..	..	14
Paralysis and Epilepsy	1	1	..	2	..	..	4
Pulmonic Affections	3	8	2	1	..	..	14
Chronic Rheumatism . . . . .	..	6	..	1	..	..	7
Ulcers and Scrofula. . . . .	..	..	1	2	..	..	3
Cachexia . . . . .	..	1	..	..	1	..	2
Diseases of the Eyes . . . . .	..	..	1	..	..	..	1
Worn out	2	9	9	1	..	..	21
Mental Diseases . . . . .	..	..	..	..	1	..	1
Total	13	81	41	17	5	..	157

Besides these, 180 whose diseases are unknown were discharged as unfit, except for garrison duty, which, with 33 reported as fit for further service, makes the total of 387 invalided from the Command as before stated.

Western Coast
of Africa.
Invaliding.

This number would have been much higher had it not been understood, when the commuted-punishment men were first sent out in 1823, that they were, under no circumstances, to be permitted to return to their native land. This having in the opinion of the medical officers added considerably to the mortality, by the despair and recklessness it induced, and by the impossibility, in some cases, of effecting a cure unless the patient was removed to a cold climate, some exceptions were afterwards made in favour of the best-conducted men, which was found to be attended with good effect; and, on the reduction of the white troops, all who had claims for service or disabilities were ultimately admitted on the pension list.

In regard to the number constantly sick in hospital, which, in previous reports, has been treated in a separate section, we have no specific details to submit, because in the Returns from which that information is attainable, the sick of the white and black troops have been included together, and, at this distance of time, it has become impracticable to separate them. To have blended the results of both, would inevitably have led to erroneous conclusions regarding the extent of inefficiency from sickness in a climate which is found to affect these two classes of troops so differently.

Mean Sick.

For a like reason it is impossible to show, with any degree of accuracy, the influence of the seasons in inducing sickness and mortality, as the black troops suffer so little from the febrile diseases which affect the whites, that what is the most unhealthy season to the one may probably prove the reverse to the other, and the results would thus tend to neutralize each other. Keeping in view this probable source of error however, it may be stated, from a calculation founded on the results of five years from 1825 to 1829, and extending over the whole force, black and white, that the proportion of admissions and deaths in each quarter of the year, out of every thousand recorded, was relatively as follows:—

Influence of the
Seasons.

	Admissions.	Deaths.
From 21st December to 20th March .	102	43
„ 21st March to 20th June . . .	227	119
„ 21st June to 20th September . .	459	647
„ 21st September to 20th December	212	191
Total . .	1000	1000

This shows the third quarter to be by far the most unhealthy, and the first quarter the least so, as has been found the case in the West Indies, Mediterranean, and most other colonies to the north of the Line. The character of these seasons, however, is by no means uniformly manifested in this Command; 1823, 1829, 1837, and 1838 were all memorable exceptions, in which the fever was most prevalent and fatal during the first and second quarters, and disappeared as the season advanced, though at these periods, the white troops were too few, for the admissions and deaths to counterbalance the preponderance in the third and fourth quarters of other years, when that description of force was more numerous in the Colony.

In regard to the influence of age on the mortality of the troops, we have only to state that so far as regards the whites, the annual returns of ages, &c., were not established till some years after that description of force ceased to be employed on the coast, and the returns of the black troops afford no information of sufficient importance to be submitted, because that class were nearly all about the same period of life, viz., between 18 and 25 years of age.

Influence of Age
and Length of Resi-
dence.

As to the influence of length of residence in diminishing the susceptibility of the white troops to the diseases prevalent on this coast, it is to be regretted that none lived long enough to admit of any accurate opinion being formed on the subject; but we find it stated by some of the medical officers, from the result of their observations among the white civil population, that no length of residence, however protracted, secured any immunity from the ravages of epidemic fever, and that, unlike the yellow fever of Gibraltar and the south of Spain, one attack was frequently succeeded by a second in the same or in a subsequent year; a fact sufficiently corroborated by the Medical Returns of 1825 and 1826, when the number of white soldiers treated for that disease greatly exceeded the average strength, which could not have been the case unless several of them had been attacked twice.

*Western Coast of
Africa.*

SECTION III.

On the Sickness and Mortality among Officers serving in Western Africa.

Sickness and Mor-
tality of Officers.

OWING to the difficulty in tracing the deaths of officers which, though originating in disease contracted on this coast, may have taken place when on leave of absence, or shortly after a removal to other corps, it is impossible to state the precise extent of mortality among that rank; but the following approximation will be quite sufficient to show that they enjoyed only a very partial exemption, and that even the prudence and freedom from excess which may generally be expected among such persons, had but little influence in rendering them less obnoxious to the fever of this coast than their less prudent or less temperate inferiors.

The following Table contains a Summary of the mortality, made up from the various sources of information to which we have had access :—

Table VIII.
Showing the Mor-
tality among Offi-
cers serving on the
Western Coast of
Africa.

Years.	COMBATANT.			MEDICAL.			COMMISSARIAT.			TOTAL.		
	Average Strength.	Died.	Return- ed home Sick.	Average Strength.	Died.	Return- ed home Sick.	Average Strength.	Died.	Return- ed home Sick.	Average Strength.	Died.	Return- ed home Sick.
1819	10	1	2	13	..	..	5	..	1	28	1	3
1820	12	2	6	9	3	2	5	1	1	26	6	9
1821	13	..	..	11	3	2	5	..	3	29	3	5
1822	14	..	2	14	2	1	4	..	..	32	2	3
1823	21	4	5	15	5	..	7	4	1	43	13	6
1824	23	20	7	15	6	..	9	4	3	47	30	10
1825	26	10	5	14	3	1	11	1	1	51	14	7
1826	26	16	12	16	6	2	18	2	..	60	24	14
1827	31	6	9	18	8	1	11	..	5	60	14	15
1828	26	2	12	12	1	1	7	1	1	45	4	14
1829	18	4	7	7	..	..	6	1	..	31	5	7
1830	9	2	5	3	..	..	4	..	..	16	2	5
1831	11	..	1	4	..	..	3	..	..	18	..	1
1832	14	..	1	3	..	1	3	..	..	20	..	2
1833	17	2	3	3	..	..	3	..	1	23	2	4
1834	16	3	3	2	..	..	4	..	1	22	3	4
1835	15	..	4	2	..	..	4	..	1	21	..	5
1836	15	1	3	3	..	..	4	..	..	22	1	3
Total.	317	73	87	164	37	11	113	14	19	594	124	117

In some of these years the number who died and returned home sick will be found to exceed the average strength during the year: this seeming incongruity is explained by the circumstance of officers constantly arriving to supply the place of those who died or left the Colony, so that, with an average strength comparatively small, the number successively exposed to the climate in the course of the year may have been considerable. These deaths did not all take place in the Sierra Leone Command, 37 occurred on the Gold Coast out of 77 officers sent there, but we are unable to give any separate details regarding them.

From the totals in this Table, the average ratio of mortality and invaliding among each of these classes has been estimated as follows :—

	Died Annually per 1000 of Mean Strength.	Returned home Sick Annually per 1000 of Mean Strength.	Total Died and Returned Home Sick.
Of Combatant Officers . .	230	275	505
Medical Officers . . .	226	68	294
Commissariat Officers . .	124	168	292
Average of all Ranks .	209	197	406

Taking the average of healthy as well as unhealthy years, upwards of a fifth have died, and nearly an equal proportion have been invalided annually; of the latter, comparatively few were medical officers, because, during a period of general sickness, their services are so essential, that they can seldom obtain leave, however much their health may require it. It will be observed, that, though their duties must have brought them frequently in contact with the sick, they did not suffer more than the combatant ranks who were not so exposed, from which it may be inferred that the fever of this coast is not, as has sometimes been supposed, of a contagious nature.

The Commissariat Officers appear to have suffered less than any of the others, probably from the sedentary nature of their duties exposing them in a minor degree to the exciting causes of disease; their numbers, however, are too few to warrant any positive conclusions.

High as the preceding estimate of the mortality and invaliding among the officers may appear, we have little doubt of its accuracy, as, in a Return furnished by the Adjutant General to the Parliamentary Committee on Military Expenditure, 119 are stated to have died, and 109 to have returned home sick, between 1817 and 1834, out of an aggregate strength of 568. Of the 124 deaths which took place throughout these Commands, we have only succeeded in tracing the causes of 119, which may be stated as follows:—

*Western Coast
of Africa.*

Table IX.
Showing the Fatal
Diseases and Causes
of Death among the
Officers serving on
the Western Coast
of Africa.

Classes of Diseases.	Specific Diseases.	Total Died by each Class of Diseases.	Ratio per 1000 of Mean Strength died annually by each Class of Diseases.	
Fevers	Febris Remittens	96	161·	
Diseases of the Lungs .	None.	
Diseases of the Liver .	Hepatitis Acuta	1	2·	
Diseases of the Stomach and Bowels	Peritonitis	1	4	6·7
	Gastritis	1		
	Dysentery	1		
	Diarrhœa	1		
Diseases of the Brain . .	Phrenitis	2	4	6·7
	Apoplexia	1		
	Delirium Tremens. . . .	1		
Dropsies	None.
All other Causes	Killed in Action	4	14	23·6
	„ by Accident	1		
	Drowned	1		
	Died at Sea on passage home	8	5	9·
	Unaccounted for, supposed to have died at home of Diseases contracted in the Command. . . . .	..	
Total		124	209·	

The number of officers who came under treatment for each of these diseases cannot be accurately specified; but we find it stated that, when fever was so exceedingly malignant in 1826, the proportion of deaths to recoveries was much the same as among the privates, 17 having died out of 26 attacked. In 1823 and 1829 one-half of those attacked died, and in other years the proportion of deaths to recoveries varied from 1 in 3 to 1 in 4. The advantage enjoyed by most of the officers of returning home, when their constitutions had become impaired by attacks of this disease, no doubt contributed materially to reduce the mortality as compared with the soldiers who had no such opportunities of recruiting their health.

Here, as in the West Indies, the officers suffered comparatively little by diseases of the bowels, only four cases having terminated fatally, though 215 soldiers died from them in both Commands, thus inducing the inference that they must have arisen from some other cause than climatorial influence.

No death is reported as having taken place from diseases of the lungs, which, combined with their rarity among both white and black troops, strengthens our previous conclusions as to the climate being favourable to that class of diseases.

We shall not attempt to investigate the mortality of the non-commissioned officers separately. The fate of some white sergeants sent out to the coast in 1822 and 1823 will be a sufficient illustration of the influence of the climate on that rank. Twelve of these were selected for promotion from detachments at the Isle of Wight, on account of their good character and unexceptionable conduct. Their behaviour while on the coast is stated to have been most exemplary, yet within a few months after their arrival all were attacked by fever, eight died, and by the end of the year three of the remainder were in the last stage of disease, and one only was left fit for duty. In the following year six arrived, who all died. Further instances would be superfluous.

*Western Coast
of Africa.*

SECTION IV:

Deductions from the preceding Report.

Deductions from
preceding Report.

It might have been expected that, in investigating the records of sickness and mortality among our troops on this coast, where the remittent or yellow fever is found to manifest itself more frequently, and in a more baneful form than in any other colony, some approximation would have been made towards the solution of the mystery in which the origin of that disease has hitherto been involved, but the more strictly that subject is examined, and the more numerous the opportunities of observation, the more defective seem the theories hitherto advanced, and the greater the difficulty of arriving at satisfactory conclusions. Many medical officers who volunteered their services in the colony entered on the enquiry with all the zeal and intelligence characteristic of their profession; but, however sanguine in their expectations of success at first, they have always, after some experience, been obliged to admit, that the disease appeared in localities so diametrically opposite in character, and under circumstances so widely different, in different years, as to render it impossible to frame any theory as to its origin which could reconcile such manifest contrarieties in its operation.

The hypothesis that this fever originates from the miasma of marshes in the immediate vicinity of the station, as elsewhere it has been supposed to do, is directly opposed to the fact of the Isles de Loss, Accra, and the peninsula of Sierra Leone itself, being so subject to it, though all are, in a certain degree, remote from the operation of any such agency. If it be referred to similar exhalations wafted to the distance of several miles, how is its prevalence to be accounted for at Fernando Po, a mountainous region and bordering on a mainland still more so, and where, so far as can be ascertained, no such agency is in operation? Instances of the disease having raged with the same violence on the rocky Isles de Loss and the sandy wastes of Senegal as in those parts of the coast where vegetation is most dense, preclude the likelihood of it originating in a superabundance of that agency. In every description of situation along the coast has this scourge of Europeans been found to prevail. The low swampy Gambia, the barren Isles de Loss, the beautifully diversified features of Sierra Leone, the open and park-like territory around Accra, the low jungle-covered hills of Cape Coast Castle, and the rugged mountainous island of Fernando Po, however different in aspect, have all exhibited the same remarkable uniformity in giving birth to the disease.

So long as the fever continued to make its appearance during the rainy season, excessive moisture was deemed one of the principal causes, but that theory has been abandoned since it has, on three or four occasions, appeared and raged with equal violence in the middle of the dry season. If we attempt to connect it with temperature, the range of the thermometer offers equally contradictory results, the disease having originated and prevailed nearly as often when that was at the minimum as when at the maximum. Variations in atmospheric pressure afford no clue whatever to the solution of the difficulty, for here, as in all tropical climates, the fluctuations of the barometer are exceedingly slight. No definite connection has ever been traced between the prevalence of any particular wind and the outbreak of the disease; the breeze blows over the same district in the healthy as in the unhealthy season. Besides, it seems entirely to negative the supposition that any of these can be more, perhaps, than mere accessories, when we find, from 1830 to 1836, the colony of Sierra Leone remarkably free from fever without any perceptible change in these respects.

It does not appear that the composition of the atmosphere, during the prevalence of yellow fever in this Command has ever been examined to ascertain if it differed from what has usually been observed at periods comparatively healthy; but this test has been applied, without any satisfactory result, in other countries. Unless some light, therefore, can be thrown on the subject by a careful examination of the electrical state of the atmosphere at such periods, there seems little hope of the origin of this disease being ever distinctly traced to any appreciable agency—a circumstance which, except as regards the interests of science, is perhaps of less importance, since where the cause is so exceedingly subtle it would, even if discovered, be in all probability beyond human control.

Though the primary cause of a disease which has created such mortality among the white troops on this coast may remain for ever involved in the same doubt and uncertainty as at present, a useful lesson may be learnt from the preceding details, as to the inexpediency of ever forming commuted-punishment men into corps for service in the Colonies. It is obvious that if such a corps is stationed in a healthy climate, banishment to it can scarcely be looked on as a punishment; but if sent to one exceedingly unhealthy, then the natural evils of climate are aggravated by despair, and that intemperance which despair too generally induces. In addition to the dread of sickness with which the soldier is impressed on his arrival, there is the certainty that, under no circumstances, will he ever be permitted to return to his native land, and the excesses to which this gave rise during the period when mortality was at its height in Western Africa are stated to have been such as to baffle description, and could only be expected from men absolutely weary of life, and driven by despair to the verge of madness. Setting all restraints at defiance, regardless of the warnings of their medical attendants, or the fate which a similar course of dissipation had accelerated in their comrades, every energy was directed to procuring the means of that intoxication which they vainly looked to as the best resource against care, and in search of which they

fearlessly encountered the tropical rays by day, and the chilling dews by night. Punishment was of no avail; that of death itself was derided by men who knew that in such a climate their hours were already numbered; and to corporal punishment they had become so habituated that it lost its terrors, though it must have been inflicted with no sparing hand, when 12 deaths are recorded from it within a year.

Even had their crimes been such as to involve the utmost penalty of the law, banishment to such a climate was obviously far from a commutation of punishment; not a twentieth part of the criminals sentenced to death in the United Kingdom about that period were ever executed, the rest were sent to a climate in which their lives were likely to be prolonged to the utmost limit; but out of the same number of military culprits sent to the coast of Africa one-half generally died during the first quarter, and the average duration of life among the others did not exceed 15 months. Yet many of the crimes which led them to this coast were by no means of a heinous nature, either in a civil or military point of view, as it too often happened that those who wanted fortitude to bear a present punishment, though comparatively trifling, were glad to exchange it for one deferred, but of the nature of which they were ignorant.

Not only was this punishment in many instances, too severe for the offence, but one of the main objects of all punishment, viz., the reformation of the offender, was completely lost sight of. Rare, indeed, were the instances of any culprit having improved in conduct during his residence in Western Africa; but hundreds became, in a tenfold degree more depraved, from constant association with others more deeply versed in crime, and from the hopeless nature of their condition. Yet this punishment, severe as it was, could produce no moral effect on the comrades of the offender, because few or none returned to tell the sufferings of the troops on that coast, which were consequently so little known to the army at large that they never operated as a warning to others.

One circumstance which mainly contributed to prevent any reformation among soldiers banished to this coast, and which is likely to operate in all penal corps similarly constituted, was the impossibility of procuring proper persons to act as non-commissioned officers. Among the commuted-punishment men, few, of course, could be found sufficiently trustworthy, and the fate of those who were promoted from other corps was sufficient to deter even the most aspiring from earning promotion at such a risk of life and constitution. Thus, in a corps where it was absolutely necessary that discipline should be most rigidly enforced, and the slightest attempt at mutiny or insubordination restrained, it too often happened that the officers were not only deprived of the co-operation of their subordinates, but even found them occasionally acting as ringleaders.

The risk to which the lives of the officers and the safety of the colonies must have been exposed, when thus placed under the protection of a body of armed felons, may readily be conceived. On one occasion a conspiracy was discovered at the head quarters of the African Corps, then at Senegal, to plunder the Settlement and escape from the coast; fortunately, the attempt was frustrated, and numbers of the ringleaders were executed. In 1816 a similar conspiracy was formed among a large detachment of commuted-punishment men proceeding to the coast, under the command of the late Lieut.-Col. Brereton, and which was only detected in time to prevent their obtaining possession of the vessel. Several of the ringleaders were condemned to death on their arrival in Sierra Leone; but, before confirmation of the sentence could be obtained, they had already perished from the effect of climate.

As frequent reference is made by the Medical Officers to the evil consequences which attended the employment of this description of troops, it may not be deemed irrelevant to the object of this Report, especially at a time when the question of military punishment forms so prominent a feature of discussion, thus to record the principal objections against penal corps. White troops of any kind can never be of material service in such a climate; but "commuted-punishment men" may not only prove of little service, but what is still worse, their employment may be attended with very considerable danger.

APPENDIX TO REPORT
ON THE
SICKNESS, MORTALITY, AND INVALIDING
AMONG THE TROOPS
ON
THE WESTERN COAST OF AFRICA.

CONTENTS OF APPENDIX.

	No. of App.		No. of App.
<i>Abstract showing the Admissions into Hospital and Deaths among the White Troops serving in the Sierra Leone Command, from 1819 to 1836 inclusive.</i>	1	<i>Abstract showing the Admissions into Hospital and Deaths among the Black Troops serving in the Sierra Leone Command, from 1819 to 1836 inclusive.</i>	2
Note A.—On Atmospheric Moisture (see below).			

NOTE A. OF APPENDIX.

ON ATMOSPHERIC MOISTURE.

Though in these reports frequent reference is made to the fall of rain in different climates, as indicative of the extent of moisture in the atmosphere, yet we are aware that the former cannot always be assumed as a correct indication of the latter.

The moisture of the atmosphere depends in part upon the quantity of rain which falls, and partly upon circumstances which retard evaporation. In the torrid zone, the quantity of vapour contained in the air is much nearer the point of saturation than in the temperate zone, in consequence of which the evaporation is much less than might be supposed from the high temperature.

Various instruments have been invented to measure the degree of moisture in the atmosphere, but in practice these instruments seem to indicate the amount of evaporation rather than the absolute quantity of moisture. In the absence of a more accurate standard, some idea may be formed of the extent to which the latter exists in tropical climates by its influence upon inorganic bodies. For example—

1. The rapid oxygenation of iron, by which tinued vessels are soon covered with rust, and iron fastenings, unless of considerable strength, are soon reduced to a state of powder.
2. The effect on common salt, which, unless carefully excluded from the atmosphere, speedily dissolves.
3. The effect on glue and paste, which soon lose their tenacious qualities. Articles of furniture in which the former has been used fall to pieces, and paper, though well-sized, becomes deteriorated and unfit for use.
4. The destruction of the texture and colour of cloth. Some kinds, but particularly woollen, are soon covered with spots and unless frequently dried become rotten.
5. The mouldiness of leather. During the wet season, in some tropical climates, boots and shoes become covered with mould in one night.
6. The rapid destruction of soft wood, which, if left underground, will rot and fall to powder within a year.
7. The rapid putrefaction of animal, and rapid fermentation of vegetable substances.

All these indications of extreme moisture are particularly observable in the climate of Western Africa, during the rainy season.

No. I. WHITE TROOPS.

Under Morbi Varii, are included, Tetanus, 1; Hydrocele, 1; Hydrarthrus, 2; Vermes, 2; Scrophula, 2; Scorbulus, 2; Contractura, 4; Hernia, 1; Fistula, 1; Prolapsus Ani, 1; Ischuria, 4; Unknown, 3; Total, 24.

Showing the Number of Admissions into Hospital and Deaths among the Troops serving in the SIERRA LEONE COMMAND, from 1819 to 1836 inclusive. (Extracted from the Medical Quarterly Returns.)

No. II. BLACK TROOPS.

Classes of Diseases.	Specific Diseases.	Years		1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	From 1819 to 1836									
		Strength		272	301	294	281	271	297	266	468	749	765	487	303	328	329	500	471	578	621	Aggregate Strength		7,581							
		Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Admitted.	Died.								
Fever.	Febris Intermittens	15	..	16	..	3	..	2	..	2	..	9	..	8	..	3	..	5	..	1	..	2	..	6	..	8	..	18	1		
	Remittens	49	..	7	..	8	..	6	..	24	2	14	1	2	..	17	1	1	..	1	..	5	1	4	..	4	..	4	..		
	Cont. Com.	..	..	..	..	7	1	6	1	7	1	10	..	1	..	9	1	1	..	1	..	2	..	1	..	2	..	2	..	
Eruptive Fevers.	Variola	12	4	7	3	..	..	..	..	3	..	146	30	18	..	..	..	..	..	..	..	45	2	72	13	303	14	52	..	
	Variola Inoculata	3	..	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Varicella	..	..	..	..	..	..	..	..	..	..	47	..	..	..	..	..	..	..	..	..	18	..	1	..	66	..	7	..	
	Vaccina	..	..	..	..	..	..	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Lungs.	Rubeola	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..
	Pneumonia	3	..	5	..	6	..	3	..	1	..	10	3	8	2	6	1	..	1	..	..	2	..	2	1	..	3	1	60	..
	Pleuritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	..	7	3	1	1	3	..	21	..	4	..	
	Hæmoptysis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	2	..	4	..	3	..	
	Phthisis Pulmonalis	5	3	2	2	3	3	1	..	4	3	1	1	..	..	1	1	1	1	1	1	2	2	3	3	1	1	31	..	
	Catarrhus Acutus	2	..	1	..	4	..	12	..	3	..	3	..	5	..	10	..	4	..	8	..	10	..	6	1	77	..	1	..		
	Chronicus	1	..	3	..	..	..	8	..	6	1	20	1	5	..	19	13	15	..	19	..	17	..	10	1	191	..	6	..	
Diseases of the Liver.	Asthma period. Conv.	..	..	..	1	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2	..	..	..	1	..	6	..	1	..
	Hepatitis Acuta	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	3	..	1	..	
Diseases of the Stomach and Bowels.	Chronica	2	1	1	..	1	..	1	..	2	..	4	1	1	2	..	2	1	..	1	..	1	..	7	..	8	..
	Icterus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
	Peritonitis	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..
	Gastritis	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	5	..
	Enteritis	..	..	..	..	..	..	..	..	..	..	1	1	..	2	2	..	..	..	..	..	1	1	..	..	..	1	..	6	..
	Dysenteria Acuta	1	1	1	..	2	2	..	1	1	1	..	1	..	2	..	7	3	11	4	34	..	9	..	40	..
	Chronica	..	..	1	1	1	..	2	..	7	1	8	..	13	2	4	..	4	1	2	..	3	2	4	1	..	6	3	57	..
Diseases of the Brain.	Dyspepsia	..	..	..	..	..	..	..	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Colica	4	..	5	..	4	..	3	..	..	..	2	..	3	..	..	..	..	..	..	1	..	1	..	..	..	23	..	15	..
	Diarrhoea	17	1	33	1	19	..	6	..	9	2	5	..	30	46	3	20	..	17	..	10	..	5	6	1	13	..	284	..	1	..
	Obstipatio	8	..	15	..	14	1	20	..	49	..	28	..	7	..	16	..	26	..	93	..	22	..	12	..	19	..	65	..	584	..
	Phrenitis	..	..	..	..	..	1	1	..	..	..	2	..	..	..	..	1	1	..	..	..	..	..	..	..	..	5	..	2	..
	Cephalali a	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	7	..
	Apoplexia	1	1	1	1	1	2	2	..	1	1	1	1	6	..	3	..
Dropsies.	Paralysis	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	1	1	..	..	..	3	1	..	..	..	..	..	..	..
	Amentia	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	1	..
	Mania	..	..	..	..	..	..	..	..	1	1	2	..	1	..	..	5	..	2	..	..	..	1	..	1	..	14	..	1	..
Rheumatic Affections.	Epilepsia	1	2	..	1	1	2	..	2	1	..	9
	Anasarca	1	..	2	2	..	4	1	2	..	3	..	5	1	..	3	1	..	4	..	2	..	31	..
	Hydrothorax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..
Venereal Affections.	Ascites	1	2	1	2	..	1	7	..	1	..
	Rheum. Acutus	6	..	7	..	7	..	6	..	5	..	3	..	1	..	5	..	..	..	..	..	3	..	3	..	..	1	..	49	..
	Chronicus	10	..	17	..	6	..	14	..																						

STATISTICAL REPORT

ON THE

SICKNESS, MORTALITY, AND INVALIDING

AMONG THE TROOPS

IN

THE ISLAND OF ST. HELENA.

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On the Sickness and Mortality among Troops serving in the Island of St. Helena.

THIS Island is situated in the Southern Atlantic, about 2000 miles from the American, and 1200 from the African continent, between 15° and 16° of South Latitude, and 5° and 6° of West Longitude. It is about 10½ miles in length, 6¼ in breadth, and has a superficial extent of above 30,000 acres.

When viewed from a distance, it presents only a mass of abrupt rugged rocks, towering to the height of 2700 feet, apparently divested of vegetation, and in several parts broken into immense chasms. On closer inspection, however, it is found to be divided by a lofty chain of hills running in a curved direction from east to west, with several ridges branching off towards the north and south, and forming valleys of various extent, but all extremely contracted. At the entrance of one of these valleys, on the North-West or Leeward side of the island, is James Town, the capital. This valley extends about two miles inland, where it terminates at the foot of a rock 300 feet in height, over which a small stream falls into a reservoir for supplying the town and shipping with water.

On each side of this valley the ground rises with great abruptness into two broken rugged eminences of considerable elevation: that on the west, termed Ladder Hill, is surmounted at the height of 600 feet by a battery, the ascent to which is so steep that it has sometimes to be made by a step ladder; the other is also of a similar precipitous character, consequently but little vegetation except patches of furze and stunted shrubs can find root, except towards the bottom of the valley.

The country becomes less wild and rugged, however, and the luxuriance of vegetation increases in proportion to the distance from the sea; most of the uplands are covered with verdure, many spots in the interior under rich cultivation, and at an elevation of nearly 1700 feet are two level tracts, called Longwood and Francis Plains, the former of which is upwards of 1500 acres in extent. That part of the island is well wooded, and affords good pasture, a few dwarf trees and shrubs are also scattered over the summits and sides of the high grounds in the interior, but, generally speaking, vegetation is scanty. Various small streams intersect the island, but there is no marshy or swampy ground.

Though within 15 degrees of the Line the climate is by no means unhealthy; even Europeans, some time resident there, experience but little of the debilitating effects so much complained of in other tropical regions. The South-East trade wind affords a steady breeze, which, in these latitudes, is rarely disturbed by storms and gales, and brings with it a canopy of clouds sufficient to afford shelter from the vertical rays and to admit of labour and exercise being carried on with impunity, even during the heat of the day.

The temperature is found to vary very materially, according to the nature of the locality and different degrees of elevation. In James Valley, for instance, where the principal part of the troops are quartered, and where the reflection from the surrounding heights tends to augment the natural heat, the thermometer during the summer months sometimes rises as high as 85°, and is generally about 80°, but at Plantation House, which enjoys an elevation of 1783 feet, the average at that season is much the same as in Great Britain. The difference between the two stations in this respect, will be seen by the following table for the year 1826:—

Months.	James Town.		Plantation House.	
	Average Minimum.	Average Maximum.	Average Minimum.	Average Maximum.
January . . .	77°	81½°	68½°	72°
February . . .	78¾°	83¼°	72°	74¾°
March . . .	78¾°	83½°	70¾°	74°
April . . .	78°	82¾°	68¼°	72°
May . . .	75½°	79½°	65½°	68¾°
June . . .	72°	76¾°	63½°	67¾°
July . . .	69°	71½°	58¾°	61½°
August . . .	68°	71½°	58½°	61¾°
September . .	68½°	71¾°	60°	63½°
October . . .	70¼°	73°	62¾°	65¾°
November . .	71°	73½°	63¼°	66½°
December . .	73°	75¾°	65½°	69¾°

The equality of temperature here indicated by the thermometer is, however, said to be counterbalanced by the circumstance, that, owing to the nature of the localities, a sudden reduction or increase may be experienced in the course of a few minutes: the soldier, for instance, who ascends from James Town to Ladder Hill, exchanges the heat of the tropics for that of a temperate region, and these transitions, particularly after the labour of the ascent, are supposed prejudicial to health.

The difference between the high and low grounds in regard to moisture is still more remarkable. In James Valley the climate is very dry; in the upper regions of the interior it is remarkably the reverse; indeed, on the summits of the hills scarcely a day ever passes

St. Helena.

Physical Aspect.

Climate.

Temperature.

St. Helena.
Rain.

without rain. The following Table exhibits the relative quantities which fell at James Town and Plantation House, in the year 1826* :—

MONTHS.	JAMES TOWN.		PLANTATION HOUSE.	
	Number of Rainy Days in each Month.	Total Quantity in each Month.	Number of Rainy Days in each Month.	Total Quantity in each Month.
		Inches.		Inches.
January . . .	..	..	13	9·3
February . . .	7	8·4	24	57·7
March . . .	5	5·7	20	33·3
April . . .	10	7·6	19	36·4
May . . .	3	·6	10	8·7
June . . .	4	11·4	3	6·6
July . . .	11	17·8	20	53·0
August . . .	5	2·2	25	43·3
September . . .	..	..	22	22·5
October . . .	..	..	4	3·1
November . . .	1	·3	15	6·4
December . . .	..	..	3	1·2
Total . . .	46	54·0	178	281·5

Thus though it rained on 178 days of that year, at Plantation House, it only rained on 46 days at James Town, and the quantity which fell at the former station, was more than five times greater than at the latter. Electrical phenomena are said to be exceedingly rare, but we are without specific information on that head.

It could scarcely have been anticipated that under the tropics, a situation could be found where the mortality among both the white and black population did not, on the average of a long series of years, exceed that of their respective native countries. There is no doubt, however, that this is the case in St. Helena, as will be seen from the following Abstract of the deaths among the civil population there, between October 1815, and September 1837, extracted from the parish register :—

PERIOD.	Inhabitants.								Strangers.				Women and Children of Troops.			Total Deaths among Civil Population.
	Free.				Slaves.								Women.	Children.	Total.	
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Women.	Children.	Total.	
15 Oct. 1815 to 14 Oct. 1816	11	10	12	33	20	1	..	21	23	..	..	23	5	15	20	97
" 1816 " 1817	22	14	5	41	7	14	..	21	8	1	..	9	1	24	25	96
" 1817 " 1818	12	10	3	25	14	6	1	21	14	1	..	15	8	10	18	79
" 1818 " 1819	8	10	10	28	5	6	5	16	8	1	..	9	5	16	21	74
" 1819 " 1820	7	9	15	31	18	5	8	31	10	..	2	12	3	15	18	92
" 1820 " 1821	7	5	14	26	4	3	8	15	7	..	..	7	4	9	13	61
" 1821 " 1822	9	4	8	21	4	4	3	11	8	..	1	9	2	7	9	50
" 1822 " 1823	4	7	6	17	6	3	4	13	3	..	..	3	3	4	7	40
" 1823 " 1824	14	9	20	43	6	8	2	16	5	..	..	5	3	11	14	78
" 1824 " 1825	9	13	28	50	11	5	13	29	7	..	2	9	5	17	22	110
" 1825 " 1826	10	9	11	30	5	2	4	11	10	..	..	10	4	9	13	64
" 1826 " 1827	10	9	9	28	7	2	4	13	13	..	2	15	5	9	14	70
" 1827 " 1828	6	10	20	36	7	2	5	14	6	1	1	8	2	19	21	79
" 1828 " 1829	9	10	12	31	4	1	6	11	9	1	..	10	1	3	4	56
" 1829 " 1830	8	10	15	33	3	3	1	7	7	..	1	8	2	4	6	54
" 1830 " 1831	6	12	18	36	8	3	1	12	7	1	1	9	1	6	7	64
" 1831 " 1832	18	8	33	59	2	3	4	9	2	..	1	3	4	4	8	79
" 1832 " 1833	13	13	16	42	2	..	2	4	6	..	..	6	5	4	9	61
" 1833 " 1834	15	9	24	48	3	1	1	5	5	..	..	5	5	6	11	69
" 1834 " 1835	20	24	24	68	1	..	..	1	11	..	..	11	5	9	14	94
" 1835 " 1836	14	14	22	50	..	1	..	1	13	..	..	13	..	2	2	66
" 1836 to 20 Sept. 1837	19	19	31	69	..	..	..	..	19	..	..	19	1	5	6	94
Total . . .	251	238	356	845	137	73	72	282	201	6	11	218	74	208	282	1,627

From this Abstract we have at present excluded the military, with the view of adverting to them more particularly hereafter. The precise number of each class of the population during this period cannot be exactly ascertained, but, including the military and their followers, they are supposed to have altogether averaged 4,500, of whom about 1500 were children under ten years of age.

Deduct the officers and soldiers whose mortality will } 900
be separately accounted for }

Remain . 3,600

Of these there died in 22 years 1,627, being 74 annually.

* This Table has been copied from one printed on the Island, and in which the fall of rain on each day throughout the year is specified.

According to this estimate the annual mortality has averaged 1 in 48½, even including the class termed strangers, many of whom were seamen landed from vessels in the last stage of disease; in the United Kingdom it averages about 1 in 47½ of the population; consequently St. Helena must be healthier than Britain.

This is the more remarkable as a large proportion of the population are of the Negro race, who in general suffer to a great extent when transported from their native country; here, however, they are found to keep up, and even to add to their numbers, for though no importation has been permitted since 1792, they increased within the following 13 years, from 1512 to 1560, a feature which has never been observed in any other British Colony.

This island has seldom been visited by any severe or fatal epidemics since its first colonization. One occurred in 1718, which cut off about 6 per cent. of the white, and a somewhat larger proportion of the black population; its precise nature cannot now be ascertained, but it is said to have occurred during a very dry season and after the continuance of north-west winds for three weeks, an unusual circumstance in an island where the wind blows almost invariably from the opposite quarter. Measles also became epidemic in 1807, and cut off about 3 per cent. of the white, and nearly double that proportion of the black population. These are the only two instances we can trace of any considerable mortality, and the care with which they have been recorded, shows that such events must have been of very unusual occurrence.

Prior to 1815, when this island was selected for the residence of the Ex-Emperor Napoleon, the garrison consisted of four companies of Artillery, and a corps of Infantry, raised expressly for the purpose, with two companies of invalids, all white troops, in the pay of the East India Company. A reinforcement of regular troops arrived with Napoleon, which was withdrawn shortly after his decease, and the island was again garrisoned solely by those of the East India Company till 1836, when, having been ceded to the Crown, the Colonial force was disbanded and replaced by troops of the line.

Troops employed.

As no returns are transmitted to the Army Medical Department from any of the East India Company's troops, we are unable to supply the usual details in regard to that portion of the force. Some documents recently forwarded from the island, however, afford the following information in regard to the extent of mortality among them, during the 20 years antecedent to October 1835:—

Year ending 14 Oct.	1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	Total.
Died of Non Com. Officers & Privates }	27	16	28	17	19	18	18	14	12	18	12	22	16	9	14	10	11	5	8	11	305

The force during this period appears to have averaged about 800, exclusive of officers, while the deaths averaged from 15 to 16 annually, consequently the mortality must have been under 2 per cent., even including that of the invalid establishment, consisting of about 100 soldiers advanced in life; it is probable, therefore, that the mortality of the effective part of the force did not exceed the usual ratio in the United Kingdom.

During the same period 25 military officers died; the average number of that class in the island appears to have been about 50, but as civil officers are also entitled to medical attendance, and we cannot state their numbers or learn whether their deaths have been included with the military, it is impossible to compare the mortality of these ranks with that of the soldiers.

So far as regards the Company's troops, therefore, as well as the civil population, the climate of this island has unquestionably proved healthy; we next come to consider more minutely its effects upon the troops of the line when employed there.

Till the year of Napoleon's decease, the British force consisted of two battalions of Infantry, a company of Artillery, and another of Sappers and Miners, with a few Dragoons; and since the island was given up to the Crown in 1836, the 91st regiment*, and a company of Artillery, have composed the garrison.

So far as regards the present force, the duty and employment in no respect differs from that in other garrisons, only one subaltern's guard mounts daily throughout the island, but, during the residence of the Ex-Emperor, guard and sentinel duties were much more frequent; fatigue parties too were often required for improving the roads and different localities in the island, and many of the soldiers worked as labourers on the buildings at Longwood. None of these causes, however, are alleged to have contributed to the sickness or mortality which prevailed among them; on the contrary, most of the medical officers state, that the troops were never so healthy as when thus actively employed.

Duty and Employment.

The permanent barracks being insufficient for the increased force sent out with Napoleon, the majority of the troops were accommodated in wooden barracks constructed in England, which are said to have been excellent of their kind. Since the island was given up to the British Government, the garrison has been quartered in James Town and Ladder Hill barracks, with the exception of a few small detachments at the outposts.

Barrack and Hospital Accommodation.

James Town barracks are generally occupied by three companies, and the head-quarters of a Regiment. They consist of three ranges of stone buildings on an artificial terrace of which the lower extremity forms a parade-ground; the officers' barracks are of two stories, those for the men only of one, and said to be too limited for the number quartered therein, as the smaller rooms afford but 400 cubic feet of space to each individual.

* A part of the 91st has lately been removed to the Cape.

St. Helena.

Adjoining these barracks, are some huts for the non-commissioned officers and married soldiers, and a fives-court for the amusement and recreation of the troops. The position of the buildings between two steep hills completely shelters them from the violence of the elements, but, were it not for the breeze which generally comes from these heights towards the sea, the heat would, owing to the confined nature of the locality, be occasionally very oppressive.

Farther up the valley, in a pleasant salubrious situation, stands the hospital, in which civil as well as military patients are treated; the accommodation is said to be sufficiently ample for both, and an adjoining piece of ground is about to be enclosed as a place of exercise for convalescents.

The other barracks are situated in a military work on the summit of Ladder Hill before referred to, and may accommodate about four companies, but we have no particulars of the nature of their construction. On this hill are also some buildings for the reception of stores, and others in which the wives and families of the soldiers are occasionally accommodated.

Rations and Diet.

From 1816 to 1822, fresh provisions were seldom issued except to such of the soldiers as were in hospital; the daily rations consisted of a pound of salt beef or pork, and a pound of bread with a pint of Cape wine, to which the soldier added such vegetables as he could afford from his pay, but, owing to the high price, these could never be procured in sufficient quantity to neutralize the constant use of salt-meat diet. The same rations were issued for some time after the arrival of the 91st, and it was not till nearly a third part of that corps had been in hospital and several deaths had occurred from diseases of the bowels, that measures were taken for improving them. Since December 1836 they have been weekly as follows:—

7 lbs. of Bread.	2 lbs. of Salt Beef.
2 „ of Fresh Meat.	14 oz. of Rice.
3 „ of Salt Pork.	7 pints of Cape Wine.

As the surplus pay of the soldier is still insufficient to obtain an adequate supply of vegetables, it has been the custom to allow a fourth part of his salt meat to be disposed of, and the proceeds applied in purchasing them. The remainder of the salt meat, with half of the ration bread, forms his dinner, except on fresh-meat days, when he has soup in addition, which is thickened with rice or flour for want of pot-herbs. Breakfast consists of a pint of tea or coffee with the ration bread, and in the Artillery there is a supper meal of the same description, but the pay of the Infantry will not, in so expensive a colony, admit of that indulgence.

Having given these details of the different circumstances by which the health of the British troops is likely to have been affected during their occupancy of the island, we shall now proceed to show the extent of mortality among them, in each of the following years, as extracted from the War-Office Returns, which include the whole strength and deaths of the garrison, with the exception of the East India Company's troops:—

Table I.
Showing the Mortality among the Troops in St. Helena as ascertained from the War-Office Returns.

Years.	Mean Strength.	Deaths.	Ratio of Deaths per 1000 of Mean Strength.	Remarks.
1816	1,063*	36	33.9	* The force in 1816 amounted to 1413, but as it was only in the island during three quarters of that year, the strength has been taken at $\frac{1413 \times 3}{4}$ or 1063.
1817	1,457	73	50.1	
1818	1,329	48	36.1	
1819	1,458	34	23.3	
1820	1,431	55	38.4	
1821	902	21	23.3	† The force present in 1822 was about 600, but as it was withdrawn at the end of the first quarter the strength has been taken at $\frac{600 \times 3}{4}$ or 150.
1822	150†	12	80.	
1836	601	7	11.6	
1837	582	9	15.5	
Total	8,973	295	..	
Average	997	33	33	

In addition to the deaths here stated, 12 took place at sea among invalids sent home for diseases contracted in the island, so that altogether the mortality must have averaged about 35 per thousand annually.

Of these deaths the following took place from violence or accidental causes:—

1 From a gunshot wound.	4 Drowned.
2 Executed.	4 By falls and contusions.
1 Suicide.	1 Aneurism.

Total . . . 13

Leaving 282 to be accounted for as having died from diseases under medical treatment.

Owing to the strictness of the prohibition against any communications being made from the island during the earlier years of Napoleon's residence, no Medical Returns or Reports were received during 1816 and 1817, and as the troops were withdrawn in the first quarter of 1822, no Returns were received for that period also. It is consequently impossible to give any information in regard to the causes of 120 deaths which occurred in these 3 years, and of the remaining 162 we are able only to account for 150. The others probably took place among the Artillery and Sappers and Miners, from which corps no Returns have been transmitted to the Medical Board.

The following table, from which the strength of the Artillery, Sappers and Miners, &c. has been excluded, will therefore show the proportion of admissions and deaths, as ascertained from the Medical Returns:—

Years.	Strength per Medical Returns.	Admissions per Medical Returns.	Deaths per Medical Returns.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1818	1,168	685	46	586	39·4
1819	1,397	785	25	562	17·9
1820	1,331	1,204	51	905	38·3
1821	829	758	14	914	16·9
1836	601	519	6	864	10·
1837	582	409	8	703	13·7
Total .	5,908	4,360	150	..	..
Average	985	727	25	738	25·4

Table II.
Showing the Admissions into Hospital and Deaths among the Troops in St. Helena, as stated in the Medical Returns.

As this excludes the three most unhealthy years, the results are much more favourable than in the previous table, the mortality having averaged only 25 per thousand annually, while the admissions have been fewer than among the most select class of troops in the United Kingdom, in the proportion of 738 to 929; unfortunately, however, the majority of them have been of a dangerous character, as will be seen by the following table, prepared from Abstract No. I. of Appendix, where the diseases which occurred in each year will be found specially enumerated:—

	ADMISSIONS.		DEATHS.	
	Total among whole Force in 6 Years.	Annual Ratio per 1000 of Mean Strength.	Total among whole Force in 6 Years.	Annual Ratio per 1000 of Mean Strength.
By Fevers	421	71	13	2·2
Diseases of the Lungs	359	61	20	3·4
" Liver	171	29	24	4·
" Stomach and Bowels	1,584	268	82	13·9
" Brain	41	7	2	·3
Dropsies	11	2	4	·7
Rheumatic Affections	205	35		
Venereal "	187	32		
Abscesses and Ulcers	430	73		
Wounds and Injuries	384	65	5	·9
Punished	178	30		
Diseases of the Eyes	209	35		
" Skin	42	7		
All other Diseases	138	23		
Total	4,360	738	150	25·4

Table III.
Showing the principal Diseases among the Troops in St. Helena.

As the Returns from this island extend only over a very limited period, compared with those of the other Colonies, the results obtained from them can be viewed merely as an approximation to the truth, which, however, combined with other circumstances referred to in the following observations, will be found sufficient to afford some idea of the influence of the climate.

FEVERS.

Under this head are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Intermittent Fever	39	..	0 in 39
Remittent "	25	1	1 " 25
Common Continued Fever	313	11	1 " 29
Yellow Fever	3	0	0 " 3
Synochus	41	1	1 " 41
Total	421	13	1 in 33
Annual Ratio per 1000 of Mean Strength	71	2·2	..

There can be no better proof that this class of diseases may be comparatively rare, even within the tropics, than that the admissions annually have been fewer, in the proportion of 71 to 75, than among an equal force in the United Kingdom.

St. Helena.

This conclusion does not rest on the Returns of the troops alone, for in No. II. of Appendix will be found an Abstract of the fatal diseases among the whole population of the island, during a period of 6 years, which shows that the deaths by fever only averaged from 6 to 7 annually, in a population of 4500, being about $1\frac{1}{10}$ per thousand of all ages; whereas the proportion who died from the same class of diseases in England, during the year 1837, according to the Registrar-General's Returns, was $1\frac{3}{10}$ per thousand of all ages—the same diseases thus producing nearly similar effects in each. Of the deaths by fever among the troops, 2 which occurred in 1819 were recruits landed from ship-board in a dying state, and therefore not attributable to the climate of the island; deducting these, the ratio of mortality by that class of diseases would, like the admissions, be almost the same as in Britain.

This station has hitherto been exempt from the ravages of those epidemic fevers which have proved so destructive to our troops in the West Indies and some parts of the Mediterranean. The cases reported as remittent and yellow fever, appear to have been nothing more than attacks of the ordinary bilious remittent, which occasionally prevails in every climate. The rocky surface of the island, and the absence of wood and marsh, will not altogether account for this exemption, seeing that in the neighbouring island of Ascension, which is still more destitute of these supposed agencies, epidemic fever prevailed among the garrison in 1823 to an alarming extent.

Nearly all the cases reported as intermittent, occurred in the 66th Regiment, one battalion of which arrived in 1817 from the East Indies, where many of the soldiers may probably have acquired a predisposition to that disease.

The relative proportion of fevers to all other diseases among the population of this island, as compared with other countries, may be thus illustrated:—

Deaths.			
Of 552 from all diseases in St. Helena,	39 were from fever,	being 1 in 14	
Of 33,501 " Malta,	2,743 "	1 " 12	
Of 148,701 " England,	9,123 "	1 " 16	

These facts establish that, so far as regards fevers, St. Helena is decidedly healthy.

DISEASES OF THE LUNGS.

Under this head are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of the Lungs	24	3	1 in 8
Pleurisy	12	..	0 " 12
Spitting of Blood	7	2	1 " 3 $\frac{1}{2}$
Consumption	25	14	1 " 1 $\frac{1}{2}$
Acute Catarrh	271	..	0 " 271
Chronic "	18	..	0 " 18
Asthma	2	1	1 " 2
Total	359	20	1 in 18
Annual Ratio per 1000 of Mean Strength	61	3.4	..

As regards this class of diseases, St. Helena seems also remarkably healthy, the proportion of admissions and deaths among the military being not half so high as in the United Kingdom or Mediterranean stations, and the same feature is manifested in the fatal diseases of the population generally, as only 86 deaths occurred among them from diseases of the lungs in the course of five years, being in the ratio of $3\frac{2}{10}$ per thousand annually.

Whereas in Malta, the ratio of mortality by the same class of diseases among the population annually, was $5\frac{1}{2}$ per thousand.

And in England, by the Registrar-General's Returns for the year ending December 1837, it was $5\frac{7}{10}$ " "

Similar deductions will be attained by calculating the proportion which diseases of the lungs bear to all other diseases among the population of these countries respectively, viz.—

In St. Helena, of 552 deaths from all diseases,	86 were from those of the lungs,	being 1 in $6\frac{1}{2}$
In Malta 33,501 " 6,664 "	" "	1 " 5
In England 148,701 " 39,566 "	" "	1 " 4

As regards this class of diseases, the greatest exemption enjoyed in St. Helena, compared with other colonies, is from inflammation of the lungs, a circumstance the more remarkable, when it is taken into view, that a large proportion of the inhabitants are of the negro race, who in other climates are exceedingly predisposed to that disease.

The period over which our observations extend being however so limited, these conclusions must be received with caution, especially as it has been observed that the last Returns from the island show a much greater mortality by diseases of the lungs among the troops than in previous years.

DISEASES OF THE LIVER.

St. Helena.

Under this head are comprised in the preceding Table,—

	Admissions.	Deaths.	Proportion of Deaths to Admissions.
Acute Inflammation of Liver	102	10	1 in 10
Chronic " "	63	14	1 " 4½
Jaundice	6	..	0 " 6
Total	171	24	1 " 7
Annual Ratio per 1000 of Mean Strength . . . }	29	4	..

Like that of Western Africa the climate of this island appears to exert an unfavourable influence on hepatic affections. They occur even more frequently and of a graver character than in the West Indies, though the temperature is lower and more uniform, and though other diseases are more rare.

Their influence in this island, compared with temperate latitudes, may be estimated from the fact, that of 552 deaths among the whole population, 16 were from diseases of the liver, being nearly 1 in 34½.

Whereas in England, the Registrar-General's Returns show that of 148,701 deaths, only 1,909 were from the same class of diseases, being 1 in 78.

Supposing the composition of the population in regard to age, to be much the same in each, it may be inferred that diseases of the liver are more than twice as common in St. Helena as in England.

As the 1st Battalion of the 66th Regiment, which arrived from the East Indies in July 1817, brought with it many soldiers who, from previous service in that country, might have acquired a predisposition to hepatic diseases, we have, before venturing on these conclusions, been at some pains to ascertain whether that circumstance exerted any influence on the previous results. On examining the Returns, however, that corps appears to have suffered less than the 20th which came direct from Europe, as of 22 deaths from hepatic disease prior to 1822, only 7 occurred in the former, while 15 took place in the latter during nearly the same period. Hepatic disease does not appear to have been by any means common among the military during the last two years, but this may be merely a temporary suspension of its influence; the results of several years at least, are requisite to found conclusions on such a subject.

We now come to a class of diseases, which have been the great source of the soldier's sufferings in this otherwise healthy climate, viz.—

DISEASES OF THE STOMACH AND BOWELS.

Under this class are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Abdominal Inflammation . . .	2	..	0 in 2
Inflammation of the Stomach. .	4	2	1 " 2
Bowels . .	12	5	1 " 2½
Vomiting of Blood	1	..	0 " 1
Acute Dysentery	705	64	1 " 10½
Chronic " "	46	5	1 " 9½
Indigestion	18	..	0 " 18
Colic	19	..	0 " 19
Diarrhœa	412	3	1 " 137
Constipation	338	..	0 " 338
Cholera Morbus	27	3	1 " 9
Total	1,584	82	1 " 15½
Annual Ratio per 1000 of Mean Strength }	268	13·9	..

More than a third of the admissions and nearly two-thirds of all the deaths among the troops, have been from this class of diseases. Dysentery is the prevailing form, and is even more severe than in the West Indies; yet in vain do we look for any peculiarity either in the climate or the locality to account for it;—the heat, owing to a cloudy sky and constant breeze, is far from oppressive, the range of the thermometer is extremely limited, and except occasionally in passing from the narrow and confined valleys to the higher and more exposed parts of the island, sudden transitions of temperature are comparatively rare; the moisture, in the low grounds at least, where the troops are principally stationed, does not appear to have exceeded the usual average in similar

St. Helena.

latitudes, and there are neither marshes, forests, nor any excessive vegetation to which the most remote suspicion can attach of having operated unfavourably in this respect. Had these diseases been principally confined to the 66th Regiment, their prevalence might perhaps have been attributed to a large proportion of that corps having acquired a predisposition to them by previous service in the East Indies, but the 20th Regiment, though direct from Europe, lost precisely the same number, and had nearly twice as many cases in hospital; yet the East India Company's troops were almost entirely exempt, indeed, in some years, the mortality among them by all diseases together, was not higher than among the King's troops by diseases of the bowels alone.

It is remarkable, too, that the population of the island generally, appear to have enjoyed a similar exemption, for, as will be seen by reference to Abstract No. II. of Appendix, of 552 deaths, only 47, or a twelfth part, were from diseases of the bowels, while of 33,501 deaths among the inhabitants of Malta, 4920, or nearly a seventh part, arose from the same cause. Thus, so far as can be estimated from the years over which these observations respectively extend, the inhabitants of St. Helena suffer scarcely half as much from these diseases as the population of Malta, indeed, they do not appear to be more prevalent than in England, though as the classification in the Registrar-General's Returns differs from that which we have adopted, it is impossible to draw the comparison so clearly.

The connexion frequently found to subsist between hepatic derangement and affections of the bowels, might perhaps in some instances have given rise to the latter among the troops, but in that case, as indeed in every other in which their prevalence or fatal character is in any way attributable to climate, the same feature should have been manifested among the officers; whereas, of about 50 belonging to the two corps in garrison, from 1816 to 1822, the number under treatment for diseases of this class did not average above three annually, being scarcely a fifth of the proportion among the troops, and not a single officer died or was even seriously affected by them. The remarkable liability of the soldiers as compared with the officers, cannot here be attributed to the intemperance so common at other tropical stations, for it is stated by the medical officers, that no spirituous liquors were at that time allowed to be landed in the colony.

Neither can this liability be attributed in any material degree to the defective accommodation of the force, nor to the nature of the duties it had to perform during the residence of Napoleon, for in 1836, when the island was given up to the Crown, and when no such causes were in operation, these diseases began to manifest themselves shortly after the arrival of the troops, commencing with obstinate visceral obstructions which, unless removed by the use of medicine and a mild diet, ultimately terminated in severe dysentery. At this time also no such disease prevailed among the civil inhabitants, or the soldiers of the colonial corps which had been disbanded, nor were any cases of it observed among the officers.

In consequence of repeated representations to which the frequency of these diseases gave rise, a Board of Medical Officers was, in October 1836, directed to investigate the subject, who, after carefully examining into all the circumstances connected therewith, came to the conclusion that the health of the troops had manifestly been impaired by the constant use of salt rations; that in several, particularly those of a scrofulous diathesis, dysentery had been induced, and that when such persons were even fortunate enough to recover from a first attack, they generally experienced a recurrence of the symptoms immediately on returning to a salt-meat diet. Two days' fresh provisions per week were in consequence ordered for the troops, with the privilege of exchanging a portion of their salt meat for fish or vegetables. The beneficial effect of this alteration was shown by the cases of visceral obstructions being reduced to half their previous amount in the course of the following year, and now they are said to be comparatively rare.

From the evidence taken before that Board, it appeared that the soldiers had then been for upwards of ten months without a ration of fresh meat, except when in hospital; if in the course of that time the baneful effect of this restriction showed itself so evidently, there seems little difficulty in solving the reason of this class of diseases being so general and of so aggravated a character among the King's troops prior to 1822, when during a period of five years, fresh meat was seldom or never issued. We are relieved, therefore, from the seeming incongruity of attributing the loss they sustained on that occasion to the agency of a climate which, so far as regards all the other inhabitants, appears to have been decidedly salubrious.

The circumstance of the East India Company's regiments being in a great measure exempt from these diseases, though receiving the same description of ration as the King's troops, may be accounted for, by most of them having formed connexions in the island, through whose aid they were in the habit of raising pigs, poultry, and vegetables, to improve their diet, which troops of the Crown, whose residence is always temporary and uncertain, had no similar opportunities of doing. The Company's troops appear also to have been in the habit of exchanging a large portion of their salt meat for fish and vegetables, and to have enjoyed the advantage of obtaining from the Government stores, tea, sugar, flour, &c., considerably below the market price.

The issue of salt rations to such an extent, arose principally from the difficulty of supporting, on the limited pasturage of the island, a sufficient quantity of cattle to afford the requisite supplies of fresh meat, but arrangements have now been made for obtaining them at a moderate cost from the Cape of Good Hope, and it is therefore to be hoped that a privation which experience has proved so prejudicial to the health and comfort of the troops, will never again be found necessary.

We have been thus particular in our observations on these diseases, because as there is no station at which their effect has been more decidedly manifested, it becomes of importance to direct attention to the facts, that past experience may serve to guard against similar consequences in future.

With respect to diseases of the brain and dropsies, the cases have been so few, and the deaths so rare, that it seems unnecessary to enter into any separate details, and the influence of the other classes will be best appreciated by the following comparison of the relative proportion attacked of the same number of troops in St. Helena, and the United Kingdom:—

St. Helena.

	Annual Ratio of Admissions per 1000 of Mean Strength.	
	In United Kingdom.	In St. Helena.
Rheumatic Affections	50	35
Venereal "	181	32
Abscesses and Ulcers	133	73
Wounds and Injuries	126	65
Punished	8	30
Diseases of the Eyes.	19	35
" Skin.	29	7
Other Diseases	44	23
Total	590	300

Thus the proportion of admissions from these minor diseases, is only half as high as among the most select class of troops in the United Kingdom, and none of them have been at all common, except those of the eyes, which might be expected to prevail in a tropical climate, particularly where the soldier is exposed to the reflected glare from a bare rocky surface.

Corporal punishment appears to have been more frequent in St. Helena than in this country, but this applies only to the period antecedent to 1822. During the last 2 years it has been so rare, that only two instances are recorded among all the troops in the garrison.

The rarity of venereal affections is most apparent in the years antecedent to 1822, when owing to a great proportion of the troops having been quartered at a distance from the town, there was probably little opportunity of contracting it. During the last two years included in the Report, it has been nearly as common as in this country, owing, it is stated, to the number of females left destitute on the removal of the East India Company's regiment from the island, and who have been obliged to resort to prostitution for their support.

With regard to the other points connected with the health of the troops in this island, our information is very limited, and we do not therefore deem it necessary to refer to them in separate sections. No precise statement can be given of the extent of invaliding, and even if obtained, it could have been of little service for illustrating the influence of the climate, since in the earlier years the corps composing the garrison were undergoing frequent reductions, and numbers were sent home under the name of invalids, though not afflicted with any serious disability, but merely ineligible to be retained as soldiers.

Extent of Invaliding.

As the Returns for ascertaining the influence of age on the mortality of troops were not established till 1830, no information can be obtained on that subject for the earlier years, and the results for 1836 and 1837 are too limited to admit of any deductions being drawn from them.

Influence of Age on Mortality.

In regard to the relative mortality of different ranks, it may be stated that two deaths took place among the King's officers by accident, but one only from disease, during the periods included in this Report. Sickness was equally rare among them; in the four years antecedent to 1822, when the rest of the troops suffered so much, only 43 cases of disease came under treatment, and these were as follows:—

Sickness and Mortality of Officers.

Fevers	6	Cholera Morbus	1
Disease of Liver	3	Rheumatism	4
Consumption	1	Ulcers	2
Catarrh	6	Fracture	1
Asthma	1	Diseases of Skin	1
Dysentery	3	" Eyes	4
Diarrhœa	9		
Colic	1	Total	43

Thus while 751 cases of dysentery occurred among the soldiers, only 3 of the officers came under treatment for that disease, all of whom recovered.

St. Helena.
Ratio constantly
Sick.

The mean ratio of inefficiency from sickness during both the periods under review, is shown by Abstract No. III. of Appendix, to have been 61 per thousand of the force, consequently the average sick time to each soldier, and average duration of each attack of sickness, must have been as follows :—

	In St. Helena.	In United Kingdom.
	Days.	Days.
Average sick time annually to each soldier }	22½	14½
Average duration of each attack }	30	16

Thus though the number attacked by sickness was shown to have been fewer, in the proportion of 738 to 929, the diseases were of a much more lingering nature than in this country, owing no doubt to the large proportion of visceral affections, which are described as being exceedingly intractable and difficult of cure.

Influence of the
Seasons.

The influence of the seasons in producing sickness and mortality among the troops, may be estimated from the following results derived from Abstracts No. III. and IV. of Appendix :—

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Monthly Mean.
Average constantly Sick }	58	65	72	71	66	55	58	56	54	63	59	59	61
Total Deaths .	20	17	24	31	31	24	33	26	21	24	31	13	24½

This table shows that the months of August and September, though the most sickly in the Mediterranean and America, are here the reverse, and that March and April, the healthiest in these Colonies, are here the least so. As St. Helena is to the southward of the Line, this is readily explained by the seasons being reversed, so that any atmospheric agency causing an increase of sickness is likely to come into operation at a directly opposite period to what has been observed at stations in the Northern Hemisphere. The proportion of deaths in these months would probably follow the same law, but from the lingering nature of the diseases, the period when they happen to terminate fatally does not always afford a fair criterion for estimating the influence of the seasons in causing them. The relative proportion of admissions in each month would have been more useful for this purpose, but unfortunately the loss of several Returns has prevented that information from being made available.

The following table shows the number of troops who were sick, died, or became invalid during the year 1851, and the number who were discharged from the service on account of sickness, mortality, or invaliding. The number of troops who were discharged from the service on account of sickness, mortality, or invaliding is shown in the column headed "Discharged from the service on account of sickness, mortality, or invaliding." The number of troops who were discharged from the service on account of sickness, mortality, or invaliding is shown in the column headed "Discharged from the service on account of sickness, mortality, or invaliding."

SICKNESS, MORTALITY, AND INVALIDING		
Year	Number of troops	Discharged from the service on account of sickness, mortality, or invaliding
1851	1,111	1,111
1852	1,111	1,111

The following table shows the number of troops who were sick, died, or became invalid during the year 1852, and the number who were discharged from the service on account of sickness, mortality, or invaliding. The number of troops who were discharged from the service on account of sickness, mortality, or invaliding is shown in the column headed "Discharged from the service on account of sickness, mortality, or invaliding." The number of troops who were discharged from the service on account of sickness, mortality, or invaliding is shown in the column headed "Discharged from the service on account of sickness, mortality, or invaliding."

The following table shows the number of troops who were sick, died, or became invalid during the year 1853, and the number who were discharged from the service on account of sickness, mortality, or invaliding. The number of troops who were discharged from the service on account of sickness, mortality, or invaliding is shown in the column headed "Discharged from the service on account of sickness, mortality, or invaliding." The number of troops who were discharged from the service on account of sickness, mortality, or invaliding is shown in the column headed "Discharged from the service on account of sickness, mortality, or invaliding."

SICKNESS, MORTALITY, AND INVALIDING		
Year	Number of troops	Discharged from the service on account of sickness, mortality, or invaliding
1853	1,111	1,111
1854	1,111	1,111

APPENDIX TO REPORT

ON THE

SICKNESS, MORTALITY, AND INVALIDING

AMONG THE TROOPS

SERVING IN

ST. HELENA.

CONTENTS OF APPENDIX.

	No. of App.		No. of App.
<i>Abstract showing the Admissions into Hos- pital and Deaths among the Troops serving in St. Helena, from 1818 to 1821, and from 1836 to 1837.</i>	1	<i>Abstract showing the number Sick in Hos- pital of the Troops in St. Helena, from April 1816 to March 1822, and from March 1836 to February 1838</i>	3
<i>Abstract showing the Fatal Diseases of the whole Population of St. Helena for a pe- riod of six years</i>	2	<i>Abstract showing the number of Deaths in each month among that Force during the same period</i>	4

showing the Admissions into Hospital and Deaths among the Troops serving in the ISLAND of St. HELENA, from 1818 to 1821 and 1836 to 1837.—(Extracted from the Quarterly Medical Returns.)

Classes of Diseases.	Years . Specific Diseases.	1818		1819		1820		1821		1836		1837		Total for 6 Years.			
		Strength		1168		1397		1331		829		601		582		Aggregate Strength 5,908	
		Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Admitted.	Died.
		By each Disease.	By each class of Diseases.	By each Disease.	By each class of Diseases.	By each Disease.	By each class of Diseases.	By each Disease.	By each class of Diseases.	By each Disease.	By each class of Diseases.	By each Disease.	By each class of Diseases.	By each Disease.	By each class of Diseases.	By each Disease.	By each class of Diseases.
Fevers.	Feb. Intermittens . . .	17	..	17	..	4	..	1	39	..	421	13
	„ Remittens . . .	2	..	4	..	13	..	..	..	..	..	6	1	25	..
	„ Cont. Com. . .	85	7	58	2	119	2	25	..	18	..	8	..	313	..		
	„ Icterodes . . .	..	..	1	..	1	..	1	..	..	..	..	..	3	..
	„ Synochus . . .	..	..	27	..	1	1	13	..	..	..	..	..	41	..
Diseases of the Lungs.	Pneumonia . . .	8	2	3	..	9	1	1	..	1	..	2	..	24	..	359	20
	Pleuritis . . .	..	..	..	..	..	..	..	..	2	..	10	..	12	..
	Hæmoptysis . . .	..	..	..	..	2	..	1	..	..	1	4	1	7	..
	Phthisis Pulmonalis . .	1	..	2	1	3	4	8	5	4	2	7	2	25	..		
	Catarrhus Acutus . . .	18	..	51	..	70	..	72	..	19	..	41	..	271	..		
	„ Chronicus . . .	2	..	..	..	..	..	7	..	..	..	9	..	18	..
	Asthma Period. Conv. . .	..	..	..	..	1	1	..	..	..	..	1	..	2	..
Diseases of the Liver.	Hepatitis Acuta . . .	45	3	20	..	31	4	2	2	1	..	3	1	102	..	171	24
	„ Chronica . . .	6	2	13	3	30	8	13	1	..	..	1	..	63	..
Diseases of the Stomach and Bowels.	Icterus	1	..	2	..	2	1	..	6	..	1584	82
	Peritonitis . . .	..	..	1	..	..	..	1	..	..	..	..	..	2	..
	Gastritis . . .	2	1	1	..	..	..	..	..	1	1	..	..	4	..
	Enteritis . . .	3	1	1	..	6	4	2	..	..	..	..	..	12	..
	Hæmatemesis . . .	..	..	..	..	1	..	..	..	..	..	..	..	1	..
	Dysentery Acuta . . .	100	20	188	18	317	20	82	4	14	1	4	1	705	..		
	„ Chronica . . .	5	1	11	1	12	1	13	1	3	..	2	1	46	..		
	Dyspepsia . . .	..	..	1	..	..	..	2	..	4	..	11	..	18	..
	Colica . . .	..	..	3	..	4	..	4	..	7	..	1	..	19	..
	Diarrhœa . . .	85	3	89	..	125	..	104	..	5	..	4	..	412	..		
Diseases of the Brain.	Obstipatio	12	..	22	..	51	..	163	..	90	..	338	..	41	2
	Cholera Morbus . . .	16	1	..	..	2	1	9	1	..	..	..	..	27	..
	Phrenitis . . .	..	..	..	..	1	1	..	..	..	..	..	..	1	..
	Cephalalgia . . .	..	..	..	..	..	..	..	..	..	..	1	..	1	..
	Apoplexia . . .	..	..	..	..	..	..	..	..	..	..	2	..	2	..
	Paralysis . . .	..	..	1	..	..	..	..	..	3	..	1	..	5	..
	Mania . . .	..	..	1	..	..	..	1	..	..	..	..	..	2	..
Dropsies.	Delirium Tremens	4	..	3	..	7	..	11	4
	Epilepsia . . .	3	1	5	..	4	..	6	..	3	..	2	..	23	..		
	Anasarca . . .	1	1	..	..	4	2	..	..	..	..	..	..	5	..
Rheumatic Affections.	Ascites . . .	1	..	2	..	2	1	1	..	6	..	205	..
	Rheum. Acutus . . .	42	..	20	..	26	..	6	..	4	..	12	..	110	..		
Venereal Affections.	„ Chronicus . . .	15	..	13	..	33	..	28	..	1	..	5	..	95	..	187	1
	Syphilis Primitiva . . .	3	1	6	..	1	..	2	..	6	..	5	..	23	..		
	„ Consecutiva . . .	6	..	2	..	1	..	1	..	22	..	4	..	36	..		
	Ulcus Penis non Syph. . .	..	..	1	..	1	..	..	..	2	..	3	..	7	..
	Bubo Simplex . . .	..	..	..	..	..	..	1	..	1	..	..	..	1	..
	Gonorrhœa . . .	4	..	3	..	2	..	1	..	45	..	30	..	85	..		
	Hernia Humoralis . . .	3	..	5	..	5	..	2	..	9	..	7	..	31	..		
	Stricture Urethræ . . .	1	..	..	..	..	..	1	..	..	..	1	..	3	..
Abscesses and Ulcers.	Phymosis	1	1	..	430	..
	Phlegmon et Abscess. . .	2	..	4	..	27	..	47	..	24	..	12	..	116	..		
	Ulcus . . .	50	..	52	..	58	..	72	..	45	..	30	..	307	..		
Wounds and Injuries.	Fistula . . .	4	1	2	..	7	..	334	4
	Luxatio . . .	..	..	1	..	..	..	1	..	4	..	2	..	8	..
	Subluxatio . . .	..	..	..	..	..	..	1	..	14	..	9	..	24	..
	Vulnus Incisum . . .	8	1	4	..	6	..	23	..	25	..	15	..	81	..		
	Contusio . . .	28	1	50	..	78	..	46	..	20	1	10	1	232	..		
Punished.	Ambustio . . .	1	2	..	7	..	4	..	1	..	15	..	178	..
	Fractura . . .	3	..	3	..	5	..	3	..	4	..	6	..	24	..		
Diseases of the Eyes.	Punitus . . .	40	..	42	..	60	..	34	..	1	..	1	..	178	..	209	..
	Morbi Oculorum . . .	50	..	39	..	68	..	44	..	5	..	3	..	209	..		
Diseases of the Skin.	Morbi Cutis . . .	17	..	9	..	4	..	3	..	4	..	5	..	42	..	42	..
	Cynanche Tonsillaris . .	1	..	2	..	5	..	4	..	9	..	6	..	27	..		
All other Diseases.	Carditis	1	1	..	138	..
	Splenitis . . .	..	..	1	..	..	..	..	..	..	..	..	..	1	..
	Nephritis . . .	..	..	..	..	2	..	..	..	..	..	..	..	2	..
	Cystitis . . .	..	..	..	..	..	..	1	..	..	..	..	..	1	..
	Otitis . . .	1	..	..	..	1	..	..	..	1	..	1	..	4	..
	Erysipelas . . .	..	..	1	..	2	..	..	..	1	..	..	..	4	..
	Hæmorrhoids . . .	..	..	1	..	8	..	3	..	2	..	2	..	16	..
	Hydarthrus . . .	..	..	..	..	..	..	2	..	..	..	..	..	2	..
	Vermes . . .	..	..	1	..	1	..	..	..	..	..	..	..	2	..
	Scrophula . . .	2	..	3	..	1	..	1	..	5	..	12	..	24	..		
	Scorbutus . . .	..	..	8	..	15	..	..	..	..	..	..	..	23	..
	Contractura . . .	1	..	..	..	..	..	..	..	1	..	..	..	2	..
	Eneuresis . . .	3	..	..	..	..	..	..	..	..	..	2	..	5	..
	Dysuria . . .	..	..	..	..	..	..	..	..	..	..	1	..	1	..
	Calculus Vesicæ . . .	..	..	..	..	..	..	1	..	..	..	..	..	1	..
	Varix . . .	..	..	1	..	1	..	..	..	..	..	1	..	3	..
	Tumores . . .	..	..	..	..	..	..	1	..	3	..	1	..	5	..
	Hernia . . .	..	..	..	..	2	..	..	..	..	..	..	..	2	..
	Amputatio . . .	..	..	..	..	1	..	..	..	..	..	..	..	1	..
	Necrosis . . .	..	..	..	..	..	..	..	..	3	..	..	..	3	..
	Morbus Cordis . . .	..	..	..	..	..	..	..	..	..	..	2	..	2	..
	Periostitis . . .	..	..	..	..	..	..	..	..	..	..	1	..	1	..
	Palpitatio . . .	..	..	..	..	..	..	..	..	..	..	1	..	1	..
	Observatio . . .	..	..	..	..	..	..	..	..	1	..	1	..	2	..
	Dracunculus . . .	..	..	..	..	1	..	..	..	..	..	..	..	1	..
	Physconia . . .	..	..	..	..	..	..	1	..	..	..	..	..	1	..
Total . . .		685	46	785	25	1204	51	758	14	519	6	409	8	4360	4360	150	150

ABSTRACT No. II. OF APPENDIX.

Showing the Fatal Diseases of the whole Population, Civil and Military, of St. HELENA, for a Period of Six Years; the Average Number Resident being about 4,500.

Classes of Diseases.	Specific Diseases.	Years						Total in 6 Years.	
		1826	1827	1831	1832	1833	1835	Died by each Disease.	Died by each Class of Diseases.
Fevers.	Febris	10	10	3	2	4	8	37	39
	Typhus	..	..	..	2	..	..	2	..
Diseases of the Lungs.	Pneumonia	2	7	7	2	..	4	22	..
	Phthisis Pulmonalis	6	10	13	7	10	12	58	86
	Asthma	..	..	..	..	..	1	1	..
	Influenza	..	..	..	..	..	5	5	..
Diseases of the Liver.	Hepatitis	3	3	2	3	2	3	16	16
	Enteritis	1	2	2	1	..	..	6	..
Diseases of the Stomach & Bowels.	Dysentery	3	8	3	2	3	4	23	..
	Diarrhoea	3	3	..	3	7	..	16	47
	Colica	..	..	..	..	2	..	2	..
	Phenitis	1	..	2	..	..	..	3	..
Diseases of the Brain.	Apoplexia	4	3	3	6	1	8	25	..
	Hydrocephalus	1	1	..	1	3	5	10	41
	Epilepsia	1	1	2	1	..	..	5	..
	Delirium Tremens	..	..	..	..	1	..	1	..
Dropsies.	Ascites	3	5	2	5	3	6	24	24
Rheumatic Affections.	Rheumatismus	..	..	..	..	1	1	1	2
	Arthritis	..	..	..	..	..	..	1	..
Ulcers.	Ulcers	1	2	..	..	..	..	3	3
	Elephantiasis	..	..	..	..	1	..	1	..
All other Diseases.	Gynanche Tonsillaris	..	..	..	3	1	..	3	..
	Trachealis	3	..	..	16	1	1	21	..
	Erysipelas	1	1	..	1	..	..	3	..
	Tetanus	..	..	..	2	..	1	3	..
	Scrofula	..	..	..	2	..	..	2	..
	Scorbutus	3	1	1	..	1	..	5	..
	Gangrana	1	1	..	..	..	..	1	..
	Cancer	4	2	11	7	6	7	37	291
	Convulsio	..	..	..	..	..	1	2	..
	Morbus Cordis	..	..	..	..	1	1	2	..
	Antri	..	..	..	..	..	1	1	..
	Childbed	..	1	2	..	..	..	5	..
	Fever	..	..	..	..	..	1	1	..
	Diseases of Uterus	..	..	..	..	..	1	1	..
	Mesentery	..	..	..	..	..	1	1	..
	Urinary Organs	..	..	..	..	..	4	4	..
	Weakness at the Birth	13	13	11	6	5	10	21	..
	Debility and Old Age	10	9	1	7	10	12	66	..
	Accidents	..	..	..	5	3	6	34	..
	Drowned	..	..	..	..	..	1	1	..
	Suicide	..	..	..	1	1	1	4	..
	Executed	..	..	..	12	13	14	70	..
	Not ascertained	9	4	18	..	..	..	1	..
Total		83	85	84	99	80	121	552	552

ABSTRACT No. III. OF APPENDIX.

Showing the Number Sick in Hospital of the Troops serving in St. HELENA, on the Muster-Day of each Month from April 1816 to March 1822, and from March 1836 to February 1838, each inclusive, as shown by the War Office Monthly Returns.

MONTHS.	1816	1817	1818	1819	1820	1821	1822	1836	1837	1838	Aggregate Sick.	Average Monthly Sick.
January	No Troops Present.	94	92	48	89	65	30	Troops Arrived.	29	19	465	58
February	..	103	110	65	102	57	37	28	30	19	523	65
March	..	115	133	82	82	62	39	29	31	..	580	72
April	..	117	124	64	92	48	..	21	26	..	564	71
May	..	70	94	57	107	42	..	16	19	..	526	66
June	..	69	72	77	77	32	..	15	19	..	441	55
July	..	70	68	81	90	30	Troops With-drawn.	12	27	..	467	58
August	..	62	62	74	64	25	..	14	18	..	441	56
September	..	81	62	65	63	25	..	22	22	..	434	54
October	..	96	59	90	83	24	..	21	20	..	501	63
November	..	104	53	85	67	24	..	27	17	..	471	59
December	..	110	66	69	61	23	..	..	..	..	471	59
Total	726	1,233	1,000	860	980	457	106	203	283	38	5,891	736
Average	81	103	83	72	82	38	35	21	24	19	491	61

ABSTRACT No. IV. OF APPENDIX.

Showing the Number of Deaths among the Troops serving in St. HELENA, in each Month from March 1816 to May 1822, and from March 1836 to December 1837, inclusive, as shown by the War Office Monthly Returns.

MONTHS.	1816	1817	1818	1819	1820	1821	1822	1836	1837	Total.
January	..	5	6	1	3	2	2	..	1	20
February	..	3	2	1	1	2	5	..	..	17
March	..	5	4	2	5	5	1	..	1	24
April	..	8	7	..	9	2	2	1	..	31
May	..	6	9	1	9	1	2	..	..	31
June	..	3	3	2	3	3	..	2	1	24
July	..	5	6	3	4	1	..	2	2	33
August	..	10	9	1	3	1	Troops With-drawn.	..	2	26
September	..	6	3	3	5	1	..	..	2	21
October	..	3	5	5	2	1	..	..	1	24
November	..	8	9	5	6	1	..	..	1	31
December	..	2	3	..	4	1	..	1	..	13
Total	36	73	48	31	55	21	12	6	10	295

STATISTICAL REPORT
ON THE
SICKNESS, MORTALITY, AND INVALIDING
AMONG THE TROOPS
AT
THE CAPE OF GOOD HOPE.

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SECTION I.

On the Sickness and Mortality among the Troops at the Cape of Good Hope.

IN this Command there are two Military Districts, one comprising Cape Town and its vicinity, the other the stations on the eastern frontier of the colony. As the latter is at the distance of nearly 500 miles from the former, and exhibits considerable difference in physical aspect, climate, and salubrity, it is proposed, after giving a general description of the colony, to investigate separately the statistical details of each.

The south-western extremity of Africa, generally termed the Cape of Good Hope, lies in lat. $34^{\circ} 22'$ S. long. $18^{\circ} 24'$ E., and consists of a detached mass of high rocky mountains, connected with the mainland by a flat sandy isthmus, forming a peninsula about 36 miles long and 8 broad, bounded by Table Bay on its western and False Bay on its eastern extremity.

The colony of the Cape of Good Hope, however, is of much vaster extent, reaching about 560 miles in an easterly direction from Cape Point, as far as the Keiskamma River,* and about 220 in a northerly direction to the Gariep or Orange River, including altogether a surface of above 125,000 square miles. As this immense space exhibits too great a diversity of climate, soil, and local peculiarities to be minutely described in so limited a report as the present, we shall confine ourselves to the following brief sketch, which is in some measure necessary to explain the arrangements adopted for security against the aggression of the native tribes.

The whole colony is intersected by three chains of mountains, running like steep walls from east to west, and enclosing belts of land of varied character. That nearest to Cape Town, between the coast and the most southerly chain, is tolerably fertile and watered by numerous streams, is in many places well wooded, and on account of its proximity to the sea enjoys a more mild and equable temperature than the interior. Between the most southern and second range called the Zwarteberg or Black Mountains, the country presents a great extent of arid plain, occasionally interspersed with small farms and plantations, wherever a sufficiency of water can be found to render the soil available for cultivation; while between the second and third range extends an arid, barren, and almost uninhabited desert, 300 miles in length and 80 in breadth, known by the name of the Great Karroo.

These mountain ranges, as well as the general surface of the country, rise gradually towards the interior, the plain of the Great Karroo being nearly 1,200 feet above the level of the sea, and the range of mountains which bounds it on the north, termed the Nieuwveld, attains in some places the height of nearly 10,000 feet.

There is likewise a gradual ascent, by successive hills and terraces, from the western coast towards the last-mentioned range, and this portion of the country exhibits the same wild desert character as the Great Karroo, except in a few spots at the base of the mountains, or by the banks of springs or rivulets, where the supply of moisture adapts the soil for pastoral and agricultural purposes.

Between the extremity of the third range of mountains, and the vicinity of the Orange River, which forms the northern boundary of the Colony, a rocky desert of immense extent intervenes, equally destitute of soil and water, and occupied only by the wandering Bushmen, and a few tribes of Hottentots.

At the eastern extremity of the Great Karroo, the mountains gradually decline towards the sea, and a fine extent of pastoral country, intersected by several streams and rivulets, opens to the view. This forms what is termed the Eastern Provinces, which, prior to the late alteration in the boundaries, extended as far as the Keiskamma River.

The cause of so large a portion, amounting probably to nine-tenths of this extensive colony, being totally unproductive, and available for no useful purpose, arises, not so much from any deficiency in the soil, as from the want of water. Though unable to specify the physical causes to which this peculiarity is attributable, it may be stated that in many of the desolate regions bordering on the Great Karroo, three years have sometimes elapsed without a drop of rain, and even in the more favoured districts of Albany and Uitenhage, the supply is exceedingly limited and irregular.

Even when rain does fall in these districts it seldom comes in refreshing showers, which gradually moisten and fructify the ground, but in devastating torrents accompanied by violent storms of thunder and lightning. The soil being a stiff clay intermingled with sand, and hardened by exposure for many months to the sun's rays, will not readily absorb moisture, so that the rain is, on such occasions, immediately drained off to the rivers and water-courses, which, rising to an enormous height, overflow their banks, and desolate

* By the recent alterations in the boundaries, the colony now extends only to the Great Fish River.

Cape of Good Hope. the surrounding country, but in a few hours, when the torrent has swept past, their channels are left bare and dry as before. Instances have occurred of rivers thus rising to the perpendicular height of 75 feet above the usual level.

From the immense rush of water on these occasions, the channels of all the rivers in that part of Africa are of unusual depth, and their banks steep and precipitous, which adds to the sterility of the country, from the impossibility of raising water for the purpose of irrigation; after a few parching days, when the springs have been dried up, and the lesser rivulets have ceased to flow, the beds of the rivers are often bare for several miles, and water is not procurable except in deep pools, where it has lodged and become stagnant.

These natural difficulties, coupled with the impassable nature of the ground, and the inoffensive character of the few tribes on the northern frontier of the colony, seem to render military protection almost unnecessary in that quarter. But on the east, the opposite banks of the Keiskamma River are occupied by numerous tribes of Caffres, a warlike race, whose frequent inroads into our territory and depredations on the cattle of the colonists have rendered necessary the establishment of an extensive line of posts along that frontier. The different localities thus occupied, as well as the nature of the climate of the eastern provinces, and its influence on the health of the troops, will be found particularly described in a subsequent portion of this Report. At present it is proposed to investigate only the statistical details of the force stationed at Cape Town and its vicinity, in what is termed—

I. THE CAPE DISTRICT.

I. Cape District.

The country to the east of Cape Town is an extensive, and for the most part, barren sandy plain, terminated at the distance of 30 or 40 miles, by the rugged and abrupt mountains of Hottentot Holland. At the extremity of this plain lies the district of Stellenbosch, which, possessing abundance of water and a good soil, presents a pleasing exception to the general sterility. The country to the distance of 10 or 12 miles south from Cape Town is also highly cultivated, well wooded and thickly inhabited.

Cape Town.

The town is situated on a gravelly plain at the west side of Table Bay, having a gentle ascent towards the foot of three barren precipitous mountains, which, stretching from the north-west to the north-east, form an amphitheatre, having its front to the Bay.

As the surface of these mountains is composed principally of sand-stone, which reflects the solar rays during the day, and gives out a portion of its acquired heat during the night, the town is, from its position, subject to a much higher temperature in summer than is usual in similar southern latitudes. The range of the thermometer, taken on the average of seven years (1827-33), was as under:—

Temperature.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Maximum . .	86	84½	82	78	73	67½	65½	67	69	72½	77	80
Medium . . .	78	76½	75	71	66½	61	59½	61	62½	65½	70	74
Minimum . .	72½	70	68½	65½	61	57	56	56	57	60	63	69

A table such as the preceding, however, which only shows the range of the thermometer in the shade, cannot convey any adequate idea of the intense heat occasioned by the reflection of the sun's rays from the adjacent mountains. This will be better estimated from the fact, that a thermometer which, a little after mid-day, stood at 86° in the shade, rose to 136° on being hung against a wall exposed to the sun and breeze. When unsheltered, it occasionally ranges, during the middle of summer, from 105° to 110°.

Rain.

The want of rain and moisture, which renders the greater part of the interior a barren desert, is but little experienced in the Cape District; being surrounded on three sides by a boundless expanse of ocean, and embosomed in mountains whose summits attract and condense the vapours, it enjoys a greater share of moisture than is usual in temperate climates. The average number of rainy days, during a series of years, was 75, and the quantity which fell averaged 41 inches annually, but we possess no accurate measurement of the relative quantity in each month.

Winds.

The prevailing winds at Cape Town are from the south-east and north-west; the former is most common during summer, and blowing over the sandy flats between the town and Simon's Bay, is usually sultry; the latter, being a sea-breeze, is cold, chilly, and often accompanied by heavy falls of rain and violent gales.

South-westerly winds prevail during spring and autumn, and coming across the wide expanse of the Southern Ocean, are generally surcharged with moisture, which wraps the summits of the mountains over Cape Town in dense fogs. As the upper stratum of the air becomes cooled, these rapidly descend in tempestuous blasts, causing an immediate reduction of temperature, with an equally sudden transition from an extremely dry to a damp raw atmosphere.

Simon's Town.

A detachment is furnished from Cape Town to a small rocky island in the entrance to Table Bay, called Robben Island. There is another military station at Simon's Town, about twenty-two miles distant, situated at the foot of a steep mountain, on the shores of a bay in which the shipping generally take refuge during the winter months, when the wind blows with such violence into Table Bay as to render anchorage there exceedingly dangerous. The climate of this station is neither so variable nor so liable to sudden transitions as that

of Cape Town, and the thermometer is lower by several degrees. The town is well sheltered from the violence of the north-west winds, and those from the south-east coming direct from the ocean, are cool and pleasant. As it rarely blows from any other quarter, and as both these winds are laden with moisture, considerably more rain falls than at Cape Town, but we cannot specify the exact quantity.

Cape of Good Hope

I. Cape District.

Neither the variable climate of the Cape District, nor the high range of temperature during the summer, seem by any means prejudicial to health, for in 1833, the deaths were only 681 out of a population of 31,167, being 1 in 46, while in the United Kingdom, according to the last census, the proportion was 1 in 47½. When it is taken into view that among the former are included the deaths of many invalids who arrived at Cape Town in the last stage of disease, there can be little doubt that, so far as regards the resident population, the climate is at least as favourable to the constitution as that of Britain.—It may be stated as a further proof, that in the neighbouring districts of Swellendam, Stellenbosch, and Worcester, where the deaths were not so liable to be increased by the arrival of invalids, the mortality for 1833, was only 707, out of a population of 47,071, or 1 in 67, being a lower ratio than in the healthiest counties in this kingdom.

General Salubrity.

The troops employed throughout the whole of the Cape Colony have of late years consisted of the Service Companies of three Regiments of the Line, one Company of Artillery, a small party of Sappers and Miners, and a Corps of Hottentots raised especially for service in the Colony. The distribution of this force between the frontiers and the Cape District has varied according to circumstances, but till the late irruption of the Caffres, the garrison of the latter was composed of the Service Companies of two Regiments of the Line, with half a Company of Artillery, and it is to that force only the following observations are at present intended to refer.

Troops Employed.

The employment of the troops at Cape Town has been merely the usual routine of garrison duties, which, except when a large proportion of the force had to be detached to the frontier, were by no means severe, night duty seldom occurring oftener than twice a week. In some of the years, parties were employed during summer in forming new roads, and improving the communications through the mountainous district of Hottentot Holland, for which they received a small rate of working pay. Wherever comfortable huts could be found to shelter them during the night, this employment was supposed to be rather beneficial to their health than otherwise, by encouraging a due degree of exercise and varying the monotonous routine of military life.

Duty and Employment.

Part of the force is quartered in the Castle, an irregular stone fort close to the sea, and surrounded by a wet ditch. The barrack is dry and comfortable, but the ventilation defective, and the heat in the summer months very oppressive, owing to the height of the ramparts behind which the buildings are placed.

Barrack and Hospital Accommodation.

The other barrack stands at the eastern extremity of Cape Town, and is a large stone building forming three sides of a quadrangle, which comprises an area of an acre and a half. It is open in front to the sea, in which direction extends a parade-ground of about 5 acres. The rooms are exceedingly lofty, well ventilated, and afford excellent accommodation.

The hospital consists of a long range of old brick buildings with a low flat roof and stone floor. It has long been in such a state of decay as to be quite unsuitable for the healthy accommodation of patients, and a new one is at present in course of erection. Both the barracks and hospital are abundantly supplied with excellent water conveyed from springs at the foot of Table Mountain.

The barrack at Simon's Town consists of a long range of rooms in an elevated situation well exposed to the sea-breeze, and affording ample accommodation for the small force quartered there. The sick are treated in the Naval Hospital, which is stated to be very commodious. Patients suffering under chronic affections are occasionally sent to this station from Cape Town for change of air, and generally with advantage.

The barrack at Robben Island is stated to be a substantial building, affording sufficient accommodation for a subaltern's party, and also for a few convalescents and invalids, who are sometimes sent there from Head-Quarters for the improvement of their health. There is no hospital, the sick being forwarded for treatment to Cape Town.

The rations of the European soldier in this district, are a pound of meat and a pound of bread daily, for which he is subject to the usual stoppage of 5*d*. All the necessaries of life are exceedingly cheap, and admit of the diet being more nourishing and ample than at other stations. The practice as to messing differs in various corps, but the breakfast generally consists of a pint or a pint and a half of coffee, with half a pound or a pound of bread, and dinner of the ration meat made into soup with vegetables and rice, and eaten with part of the ration bread. There is no established supper meal, but some of the men purchase it for themselves. The hour of breakfast is 8 A.M. and of dinner 1 P.M., consequently those who do not choose to provide themselves with supper, pass 19 hours without food, a practice which, in a country where the stimulus of ardent spirits can so readily be procured by the soldier, is strongly reprobated by the medical authorities.

Ration and Diet

Having given these particulars regarding the circumstances by which the health of the troops is likely to have been affected, we shall next proceed to show what has been the extent of sickness and mortality during a series of years.

Cape of Good Hope.

I. Cape District.

Table I.

Showing the Admissions into Hospital, and Deaths among the White Troops in the Cape District.

Years.	Strength.	Admissions.	Deaths.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1818	1,291	892	14	691	11
1819	1,206	995	13	825	11
1820	1,220	1,081	13	886	11
1821	1,569	1,169	16	745	10
1822	1,385	1,405	24	1,014	17
1823	1,347	1,230	17	913	13
1824	1,318	1,419	15	1,077	11
1825	1,346	1,829	35	1,359	26
1826	1,327	1,340	15	1,010	11
1827	1,423	1,200	19	843	13
1828	1,154	1,131	15	980	13
1829	1,171	1,166	7	991	6
1830	1,174	1,468	11	1,250	10
1831	1,154	1,218	15	1,055	13
1832	1,114	1,163	19	1,044	17
1833	1,096	1,157	16	1,056	15
1834	1,085	1,021	22	941	20
1835	586	831	15	1,418	52
1836	748	791	10	1,057	13
Total .	22,714	22,506	311	..	..
Average	1,195	1,184	16	991	13.7

We have not been able to include the year 1817 in this Table, owing to some deficiency in the Returns; but on the average of the other nineteen years, the proportion attacked annually by disease has been 991, and the deaths 13.7 per thousand of the strength. The latter, however, is exclusive of deaths from accidental causes, not stated by the medical officers, but which have been ascertained from the Returns and Casualty Lists forwarded to the War Office, as follows:—

Drowned	8	Found dead	2
Killed by falls	3	Died from excessive intoxication	8
Died suddenly	2	Stabbed in a quarrel	1
„ on detachment	2	Died from ruptured blood-vessel	3
Shot	2	Died prior to 1822, cause unknown	8
Committed suicide	3		
		Total	42

These casualties increase the mortality from all causes to 15½ per thousand being very nearly the same as among the Dragoon Guards and Dragoons in the United Kingdom, which, combined with the facts already adduced in regard to the civil population of the Cape District, affords sufficient evidence of the general salubrity of that part of the Colony.

It will be observed that both the sickness and mortality have been very uniform in every year; the highest ratio was in 1825, when fever and dysentery were very prevalent. In 1835, too, the admissions into hospital and deaths considerably exceeded the usual average; but that apparent increase may have arisen from the sick of reinforcements sent to the frontiers having been left behind in the hospital at Cape Town, and included in the Returns, though the strength has been deducted.

This uniformity in the results of each year, is, in a great measure, owing to the absence of those epidemics which occasionally affect the health of the troops to so great an extent in other colonies. Cholera, in its epidemic form, has as yet been unknown, and influenza was also less prevalent and less severe in its character than in any other quarter of the globe in which we have traced its progress.

Notwithstanding these advantages, the low rate of mortality among the troops is rather singular, when we consider that, owing to the cheapness of provisions the soldier has a larger sum at his disposal than in most other colonies, and that the abundance of brandy and low wines produced in the vicinity of Cape Town, enables him, for two or three pence, to procure daily, the means of intoxication. This confirms what has already been stated in previous Reports, that however baneful the vice of intemperance may be in its ultimate effects, its immediate influence in increasing sickness and mortality, is by no means so evident in healthy climates as has generally been supposed.

These remarks apply principally, however, to the younger soldiers; it will hereafter be shown, that among those advanced in age, and whose constitutions have probably been deteriorated by a long course of dissipation, the ratio of mortality increases with great rapidity, though from the proportion of old soldiers in the army being comparatively small, these ultimate consequences of intemperance are scarcely perceptible when viewed in the aggregate.

The diseases whereby the admissions and deaths in each year have been occasioned

among the White Troops in the Cape District, will be found specially enumerated in *Cape of Good Hope* Abstract No. I. of Appendix, of which the results are exhibited in the following Table :—

I. Cape District.

Table II.
Showing the principal Diseases among the Troops serving in the Cape District.

	Admissions.		Deaths.	
	Total among whole Force in 19 years.	Annual Ratio per 1000 of Mean Strength.	Total among whole Force in 19 years.	Annual Ratio per 1000 of Mean Strength.
Fevers	1,994	88	44	1·9
Eruptive Fevers	9		1	·1
Diseases of the Lungs	2,218	98	89	3·9
" Liver	496	22	25	1·1
" Stomach and Bowels	2,859	126	70	3·1
" Brain	221	10	31	1·3
Dropsies	48	2	13	·6
Rheumatic Affections	1,463	64	1	1·7
Venereal "	4,777	210	8	
Abscesses and Ulcers	2,673	118	5	
Wounds and Injuries	2,861	126	6	
Punished	796	35	..	
Diseases of the Eyes	720	32	..	1·7
" Skin	317	14	..	
All other Diseases	1,054	46	18	
Total	22,506	991	311	13·7

Out of the 22,506 admissions here recorded, 14,661, or very nearly two-thirds of the whole, are of that description which seldom prove fatal, and for which, indeed, if the soldier had been left to his own option, it is by no means probable he would have submitted to the confinement of hospital. The same feature, and to nearly the same extent, was noticed in recording the diseases among the Dragoon Guards and Dragoons in the United Kingdom. This always constitutes a marked distinction between the diseases of tropical and temperate climates, and shows that the number of admissions into hospital among the troops is of little use as an element for estimating the salubrity of a station, or the probable efficiency of a garrison, unless accompanied by an accurate specification of the diseases by which they have been caused.

We shall now proceed to make a few remarks in regard to the principal classes of diseases referred to in the preceding Table.

FEVERS.

Under this head are comprised—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Quotidian Intermittent . . .	11	..	0 in 11
Quartan "	2	..	0 " 2
Remittent	15	1	1 " 15
Common Continued	1,924	42	1 " 46
Typhus	2	1	1 " 2
Synochus	40	..	0 " 40
Total	1,994	44	1 in 45
Annual Ratio per 1000 of Mean Strength	88	1·9	..

On comparing these results with the average extent of sickness and mortality from the same cause among troops in the United Kingdom, we find them nearly to correspond, the admissions being as 88 to 75, the deaths as 1·9 to 1·6. The extreme rarity of fevers of the intermittent and remittent type, is particularly striking; indeed, among the inhabitants they are said to be altogether unknown. The 13 cases recorded as intermittents among the troops may probably have been slight attacks in persons who had originally contracted that disease in other climates, and the 15 cases recorded as remittent, seem not to have been of a decided character; the principal medical officer states "that they all appeared to him to be modifications of simple continued fever with the remissions and exacerbations more marked in some than in others, apparently arising from excitement of the biliary organs."

The sandy nature of the soil, the rocky formation of the under strata, the total absence of marsh, and the comparative scarcity of wood and forest in Cape Town and its vicinity, have all been assigned as causes of this marked exemption from remittent and intermittent fevers; but we shall hereafter have occasion to show that in other colonies, the Mauritius for instance, these diseases are equally rare, at stations of which the physical character is directly the reverse.

Cape of Good Hope.

I. Cape District.

Most of the cases of common continued fever are said to have arisen from the immoderate use of Cape brandy. That this may have had some effect in producing slight cases is exceedingly probable, but that it cannot have added in any material degree to the mortality is sufficiently evident from the fact, that the proportion of deaths, from all kinds of fever, is only higher by a mere fraction than what occurs in this country among the most select class of individuals insured in the Equitable Office, who may be supposed in a great measure exempt from the vice of intemperance.

On reference to the General Abstract No. I. of Appendix, where the cases of fever treated in each year are enumerated, it will be found that, except in 1825, the number has been remarkably uniform. On that occasion the disease was principally confined to the 55th and 98th Regiments; of the former, 73 were attacked out of a strength of 366; of the latter, 113 out of 556, being exactly a fifth in each instance. The 49th, though also at Cape Town, did not suffer more than usual, nor did the disease extend to the troops at Simon's Town. It is said to have been somewhat different from the usual form prevalent in the garrison, assuming in most cases a mild typhoid character, and was supposed to have originated with the 98th Regiment, a corps recently raised, and which had then newly arrived in the garrison.

Eruptive fevers have been exceedingly rare, only 9 cases and 1 death having occurred among all the troops, during the 19 years under review.

DISEASES OF THE LUNGS.

Under this head are comprised in the preceding Table—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of the Lungs	673	22	1 in 31
Spitting of Blood	55	3	1 „ 18
Consumption	125	56	1 „ 2 $\frac{1}{4}$
Acute Catarrh.	1,200	3	1 „ 400
Chronic „	120	2	1 „ 60
Asthma	29	2	1 „ 14
Difficulty of Breathing	16	1	1 „ 16
Total	2,218	89	1 in 25
Annual Ratio per 1000 of Mean Strength	98	3.9	..

In most of the Medical Reports, the prevalence and fatal character of this class of diseases is strongly commented on, under the impression that, owing to the sudden changes of temperature and violent gusts of wind to which Cape Town is exposed, the troops are more subject to them than in other colonies. We find, however, the reverse of this to be the case, as is shown by the following comparison deduced from this and previous Reports:—

	Attacked Annually per 1000 of White Troops at each of the following Stations:								
	Windward and Leeward Command.	Jamaica.	Gibraltar.	Malta.	Ionian Islands.	Bermuda.	Canada.	Nova Scotia and New Brunswick.	Cape District.
By Diseases of Lungs generally	115	85	141	120	90	126	148	125	98
Inflammation of ditto, and Pleurisy	23	14	42	34	32	37	43	35	30
Phthisis Pulmonalis	12	13	6 $\frac{5}{10}$	6	5	8 $\frac{0}{10}$	6 $\frac{5}{10}$	7	5 $\frac{5}{10}$
Catarrhs, Acute and Chronic	75	55	86	74	49	74	89	73	58
Deaths annually per 1000 of the Strength from all Diseases of the Lungs at the same stations	10 $\frac{4}{10}$	7 $\frac{5}{10}$	5 $\frac{3}{10}$	6	4 $\frac{8}{10}$	8 $\frac{7}{10}$	6 $\frac{7}{10}$	7 $\frac{1}{10}$	3 $\frac{0}{10}$

This shows better than any other description of evidence can possibly do, how erroneous is the impression that the climate of this district has any peculiar tendency to excite or aid in the development of pulmonary affections. On the contrary, the aggregate mortality from them is less than in any of the colonies above referred to, and the degree of prevalence is greatly under the average, though, according to the generally received opinions on such subjects, the climate might be supposed much more likely to induce them.

This error has probably originated in there being hitherto no document whereby a medical officer could compare the influence of the same diseases in other colonies with

that in which he is serving; consequently, in healthy climates, where the admissions and deaths by diseases of the lungs must always form a considerable proportion of the aggregate sickness and mortality, their influence is apt to be overrated, while in unhealthy climates, where they form a comparatively small item in the general mass, the reverse is the case, though they may in reality be more prevalent and fatal.

The influenza, or epidemic catarrh, prevailed to a slight extent among the troops in 1836, and inflammation of the lungs was more common than usual in 1823, though not by any means of a dangerous character; except on these two occasions, this class of diseases will be found to exhibit such remarkable uniformity in the results of each year, as to present no feature particularly worthy of notice.

Cape of Good Hope.
I. Cape District.

DISEASES OF THE LIVER.

Under this class are comprised,—

	Admissions.	Deaths.	Proportion of Deaths to Admissions.
Acute Inflammation of Liver . .	270	10	1 in 27
Chronic "	153	15	1 „ 10
Jaundice	73	0	0 „ 73
Total	496	25	1 in 20
Annual Ratio per 1000 of Mean Strength	22	1.1	..

Though this Colony enjoys a happy exemption from other tropical diseases, those of the liver are rather frequent in occurrence; the proportion of admissions and deaths is nearly the same as in Malta or the West Indies, 22 per thousand being attacked, and 1 $\frac{1}{10}$ per thousand of the strength dying annually by them. Neither here, nor on the eastern frontiers of the Cape, however, do they produce the same fatal effects as at St. Helena or the West Coast of Africa, though the temperature, particularly on the frontiers, ranges higher during summer than in either of these Colonies.

DISEASES OF THE STOMACH AND BOWELS.

Under this class are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Abdominal Inflammation . .	23	9	1 in 2 $\frac{1}{2}$
Inflammation of the Stomach .	16	3	1 „ 5 $\frac{1}{3}$
„ „ Bowels . .	67	8	1 „ 8 $\frac{1}{3}$
Vomiting of Blood	6	..	0 „ 6
Acute Dysentery	1,354	28	1 „ 48 $\frac{1}{3}$
Chronic „	71	16	1 „ 4 $\frac{1}{2}$
Indigestion	195	..	0 „ 195
Colic	118	2	1 „ 109
Diarrhœa	735	..	0 „ 735
Constipation	206	2	1 „ 103
Cholera Morbus	68	2	1 „ 34
Total	2,859	70	1 in 41
Annual Ratio per 1000 of Mean Strength	126	3.1	..

This class of diseases does not in the aggregate exhibit any great degree of prevalence, the ratio of admissions compared with what has been observed among troops in the United Kingdom, being relatively as 126 to 94. It is even considerably lower than in British America; but with this marked distinction, that there, affections of the bowels show themselves chiefly in slight attacks of diarrhœa which yield readily to remedial measures, whereas in this colony, nearly one-half of the cases assume the form of dysentery, which, after repeated relapses, become chronic, and in that stage are so apt to prove fatal that the deaths average 1 in 4 $\frac{1}{2}$ of the admissions.

This distinction will account for the mortality from diseases of the bowels being thrice as high as in the North American stations, and nearly five times as much so as in the United Kingdom. In that respect the troops at the Cape seem nearly on a par with those in the

Cape of Good Hope.

I. Cape District.

Mediterranean. Much of their sufferings from these diseases have been attributed to habitual intemperance, the want of due precaution when labouring under slight attacks, and an unguarded indulgence in the use of fruit, which the colony produces in great abundance.

It has been stated that regiments newly arrived suffer, in this respect, to a greater extent than others, but, though that was the case in 1822 and 1825, it does not appear to have been so, on prior or subsequent occasions, when changes took place in the garrison. Very few cases, however, particularly of dysentery, have occurred from 1831 to 1836, a period during which no new corps arrived, and this seems to favour the idea of the tendency to these diseases being diminished, as the troops acquire experience in guarding against the causes likely to induce them.

EPIDEMIC CHOLERA.

No cases of this disease have as yet occurred in the colony, either among the troops, civil inhabitants, or aborigines.

DISEASES OF THE BRAIN.

Under this head are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of the Brain	18	7	1 in $2\frac{1}{2}$
Headache	17	..	0 „ 17
Apoplexy	24	17	1 „ $1\frac{1}{2}$
Palsy	43	2	1 „ $21\frac{1}{2}$
Fatuity	25	1	1 „ 25
Madness	17	..	0 „ 17
Brain Fever of Drunkards	13	3	1 „ $4\frac{1}{4}$
Epilepsy	64	1	1 „ 64
Total	221	31	1 „ $7\frac{1}{8}$
Annual Ratio per 1000 of Mean Strength	10·	1·3	..

This class of diseases exhibits nearly the same degree of prevalence and severity as in the North American colonies. A large proportion of the cases are said to have been, directly or indirectly, attributable to intemperance, but here this vice does not seem to produce the same baneful effects, by giving rise to Delirium Tremens, as among the troops in North America, where that disease is nearly tenfold as common. If the relative prevalence of Delirium Tremens throughout all the colonies is investigated, it will be found rare wherever wine is procurable at a moderate rate, compared with stations at which spirits form the principal intoxicating medium; a circumstance which should lead to the sale of the latter being placed under more rigid regulations than the former, as having greater tendency to induce permanent injury of constitution.

DROPSIES.

Under this head are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Subcutaneous Dropsy	25	3	1 in 8
Abdominal „	18	5	2 „ 7
Water in the Chest	5	5	1 „ 1
Total	48	13	1 in 4
Annual Ratio per 1000 of Mean Strength	2	$\frac{6}{10}$	..

This class of diseases seems only to have affected the health of the troops at the Cape in a very slight degree—much the same as in North America, Malta, or the Ionian Islands. Indeed it is surprising how exactly the ratio of admissions and deaths correspond in all these colonies, the difference being only a very small fraction.

In taking a review of the various other diseases, which, though the source of considerable inefficiency among the troops, have so seldom proved fatal as not to require the same specific notice as those already referred to, it will, perhaps, be sufficient for our purpose to bring the ratio of admissions into comparison with what has taken place, from the same causes, among the Dragoon Guards and Dragoons in the United Kingdom, viz.—

Cape of Good Hope.
I. Cape District.

	Annual Ratio of Admissions per 1000 of Mean Strength in	
	United Kingdom.	Cape of Good Hope.
By Rheumatic Affections . .	50	64
Venereal . .	181	210
Abscesses and Ulcers . .	133	118
Wounds and Injuries . .	126	126
Diseases of the Eyes . .	19	32
" Skin . .	29	14
Punished	8	35
All other Diseases	44	46

The first peculiarity we are here called on to notice in the climate of the Cape, is its tendency to induce Rheumatic affections. In this respect, it is worse than the United Kingdom, or any of the colonies which have yet come under our observation. These diseases are also said to be still more common among the civil inhabitants, and are attributed to the winds, during spring and autumn, being so much surcharged with moisture, and blowing, in such violent gusts, from the mountains. The latter of these causes may, perhaps, have some effect, but the influence of the former appears very doubtful, because, on the eastern frontiers, which suffer under an extreme want of moisture, Rheumatic affections are found to be nearly as common as at Cape Town.

Venereal diseases are rather more numerous than in the United Kingdom, and some of the cases are exceedingly obstinate of cure, especially when contracted from Hottentot females, whose dirty and dissolute habits are said materially to aggravate their virulence. It does not appear that any sanatory precautions are adopted, to prevent their propagation among the troops, except that of causing every soldier, under treatment, to declare the name of the woman from whom he contracted the disease, who is then sent into the Civil Hospital till cured.

Diseases of the eyes are more common than in the United Kingdom, but the Returns from all the colonies present the same feature, indeed the ratio, under treatment, is lower at the Cape than in most of them.

The ratio of corporal punishment appears to have been more than four times as high as in the United Kingdom, but the calculations for the latter extend only over the last seven years, during which this description of punishment has been comparatively rare. Had those for the Cape been taken for the same period, the excess of corporal punishment there would have been only as 14 to 8.

The following table shows the number and ratio corporally punished in each year during the period included in this Report:—

	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	Total.	Average.
Number corporally punished .	98	51	57	115	59	44	74	67	48	27	28	33	22	10	17	14	7	13	12	796	42
Ratio per 1000 of Strength corporally punished .	76	42	47	73	43	33	56	49	36	19	24	28	19	9	15	13	6	22	16	..	35

Before concluding these observations, it may be necessary to state, that in the winter and spring of 1825, Erysipelas prevailed to a great extent in the 98th Regiment, but did not attack any of the other corps; there were in all 22 cases, 3 of which proved fatal. No satisfactory reason could be assigned for its appearance, nor did it seem at all connected with any atmospheric influence observable at that period. The disease ceased as summer approached, nor has it since been common at the station.

II. EASTERN FRONTIER DISTRICT.

<i>Cape of Good Hope.</i>	THE troops employed on the Eastern Frontier of this Colony are principally stationed in
II. Eastern Frontier District.	the Province of Albany, which is bounded on the west by part of the province of Uitenhage; on the north by a lofty, and in many parts inaccessible range of rocky mountains, rising to the height of from 7000 to 10,000 feet; on the south by the sea; and on the east by the Keiskamma River*, and territory of the Caffres.
Geographical Description.	The desolate character of the country reaching inland from Cape Town to the confines of this province has already been described; on descending, however, from the rocky and barren mountain ranges which form the eastern boundary of the Great Karroo, or Desert, it begins gradually to improve. Though still rugged in the extreme, many parts are highly picturesque and intersected by deep valleys, through which flow several tributary streams, with banks either admitting of cultivation, or affording rich herbage. Towards the south-east, in the province of Albany, the mountains break into a pleasing succession of hill and dale, forming a rich pastoral district. The soil in most parts is alluvial, but on approaching the sea, where the surface declines into a succession of level plains, it becomes light and sandy.
Rain.	The aspect of this part of the colony is described as being extremely pleasing; the high grounds are in general thickly covered with bush, but the low grounds are open, and occasionally dotted with clumps of mimosa, which give them the appearance of an extensive park. Though intersected with streams and rivulets, these frontier provinces frequently labour under a great want of water. Except in the vicinity of the sea, but little dew is deposited at night; and as rain only falls in any quantity during the months of November, December, and January, the herbage is frequently destroyed for want of nourishment. Even the water requisite for the use of the troops is sometimes difficult to be procured; and, in consequence, the positions occupied by them along the frontiers have been selected, not so much with reference to the facility the ground may happen to afford for the purpose of military defence, as from its vicinity to some of the rivers ensuring at all times an adequate supply of this necessary of life.
Temperature.	The climate in different parts of the frontier varies very materially; about Graham's Town and near the sea coast the winter nights are sharp and clear, accompanied by slight frosts; while the summer heat, though sometimes intense, is generally tempered by a cooling breeze. At some of the posts, however, which do not possess this advantage, and where the wind is heated by the arid and sandy surface of the interior, the temperature during summer is excessive. On the Keiskamma and Great Fish Rivers, for instance, the thermometer about noon has been frequently known to range for several weeks from 105° to 110° in the shade, and from 135° to 140° in the sun; and even during several months it has seldom been under 95° at that hour.
General Salubrity.	This portion of the colony, however, is, throughout the whole year, subject to very sudden transitions of temperature; the thermometer in summer has been known to fall from 110° to 64° in the course of a few hours, and, in winter, though it is often as low as the freezing point at night, it sometimes rises to 70° or 80° at mid-day. The degree of heat in summer is in a great measure regulated by the quantity of rain in the preceding season; if the fall has been plentiful, the summer is comparatively cool, if scanty, the reverse.
	Notwithstanding the extremely high temperature of this climate, its salubrity is probably unequalled in any portion of the globe. As a proof, we may state, that in the three adjoining districts of Somerset, Albany, and Uitenhage, the deaths in 1833 did not amount to more than 327, in a population of 30,000, being only 1 in 91, which is much lower than has ever been observed even in the very healthiest districts of Great Britain. It is no doubt, possible, that from the effect of immigration, there may be a greater proportion of persons in the prime of life in these provinces, than in a country of which the population is stationary; but even making all due allowance for that contingency, we have sufficient evidence that the climate of these provinces is, in an eminent degree, favourable to the European constitution.
Troops Employed.	The remarkable exemption of the troops in this part of the colony from sickness and mortality will be hereafter adverted to, when we have given a few particulars regarding the different kinds of force employed, their distribution along the frontiers, their diet, duty, employment, and other circumstances by which their health is likely to have been affected.
	The force has, during most of the period under review, consisted of half a company of Artillery, a party of Sappers and Miners, from four to six companies of Infantry, and the Hottentot Corps before referred to. In addition to this regular force, every male inhabitant, capable of bearing arms, is bound to serve when called on, so that occasionally, when the frontier has been threatened, from 3000 to 4000 men have been brought into the field.
Duty and Employment.	The duty of the regular troops, even in years when no warfare prevailed on the frontier, has generally been of a more varied and active description than in other colonies. As occasion required, they have been employed in erecting forts, building barracks,

* The Great Fish River is now the boundary.

making and improving roads, escorting stores and supplies from the sea-coast to the different stations in the interior, guarding cattle in the field to protect them from the inroads of the Caffres, or patrolling the country in various directions in search of them when stolen. Though these duties have necessarily caused much exposure under an excessively high temperature, they do not appear to have militated against the health of the troops.

Before entering on a brief sketch of the principal posts at which the troops have been quartered along the frontier, during the period under investigation, it may be necessary to premise, that after the irruption of the Caffres in the end of 1834, several were abandoned, and new positions selected, in consequence of the subsequent alteration in the line of frontier. For this reason, therefore, as well as to avoid mixing up casualties resulting from warfare with mortality by disease, it is not proposed to extend the investigation regarding the health of the troops in these provinces farther than 1834, and the following description of the military posts will therefore be given as they existed about that period.

Cape of Good Hope.
II. Eastern Frontier District.

Barracks and Hospitals.

PORT ELIZABETH,

Or, Algoa Bay, being the principal sea-port of the frontier districts, first claims our attention. It is nearly 500 miles from Cape Town; and as this distance, if travelled overland, would prove exceedingly harassing and injurious to troops, from the arid nature of the country through which they would have to pass, all detachments and reliefs for the force on the frontier, are sent by sea from Cape Town to this port, whence they are marched into the interior. Military supplies are forwarded by the same route; consequently the station always requires the presence of a small garrison, to aid in unloading the Government stores, and protecting them from depredation. On this duty an officer and 30 men have usually been employed, under the medical superintendence of an assistant-surgeon.

Port Elizabeth.

The barrack in which this detachment is quartered, stands above the town, on a rocky eminence nearly two hundred feet in height. The accommodation consists merely of one large room, with a thatched roof and boarded floor. Another small room, in an adjoining building, has been fitted up as a temporary hospital, and it is in contemplation to erect a new one of a more permanent description, sufficient to accommodate patients sent from the interior, who often derive much benefit from the change of air.

From its proximity to the sea, the temperature during summer is nearly ten degrees lower than in the interior. The soil enjoys a greater share of moisture, dew falls more abundantly, and the climate has always had a high character for salubrity.

About 100 miles in a north-easterly direction from this port, lies—

GRAHAM'S TOWN,

The capital of Albany, and head-quarters of the eastern division of the colony. Though this town is situated at the foot of a range of hills which intersects the province from north-west to south-east, yet, as there is a gradual ascent all the way from Port Elizabeth, it stands at least one thousand feet above the level of the sea. One of the chief branches of the Cowie river flows through it, and the soil in the vicinity is good, but there is little cultivation, owing to the supply of rain being very precarious; except in seasons of extreme drought, however, this part of the colony produces excellent pasturage.

Graham's Town.

The force quartered here has varied according to circumstances, but has generally amounted to about 400 men, principally Infantry of the line, and a few Artillery.

The Infantry barracks are on the slope of a hill to the east of the town, and consist of three buildings of stone and brick, each 75 yards long, with thatched roofs and stone floors. The whole, with the outhouses, covering an area of about half an acre.

The Artillery barrack is in the town, and forms part of an old wooden building, most of which has fallen into decay, though the portion occupied by the troops is kept in tolerable preservation.

The Hospital stands on the slope of a small eminence, about 150 feet from the barrack, and is of the same materials as that building, but has boarded floors, and contains two wards, each 27 feet by 16, with a hall, which are well ventilated, and have the requisite offices attached.

The troops are supplied with water from an excellent spring, conveyed to the barracks from the high grounds in the vicinity.

This station is subject to a high degree of temperature in summer, and to comparatively severe cold in winter. Snow is rare, but ice is often formed of considerable thickness. The following table exhibits the range of the thermometer for the year 1822, which may be taken as an average of the whole period:—

*Cape of Good Hope.*II. Eastern
Frontier District.

	Max.	Med.	Min.	Prevailing Winds, &c.
January . .	97	82	67	E.S.E. and S.W.; thunder and heavy rain from the northward.
February . .	98	79	60	Easterly; cloudy, rain 8 days.
March . .	92	77	62	Easterly; very dry.
April . .	88	75	64	W.S.W.; dry, two thunder storms.
May . .	79	62	50	S.W.; strong rain two days.
June . .	75	57	42	S.W. and W.N.W.; rain on the 15th.
July . .	69	52	41	N.W. and W.N.W.; rain on the 4th.
August . .	74	68	44	W.N.W.; some rain and hail.
September . .	85	64	43	E.S.E. and S.E.; heavy mists and rain.
October . .	86	63	51	E. and S.E.; thunder storms, cloudy, rain on 3 days.
November . .	91	67	54	S.E. and S.W.; generally dry, but slight rain on 9 days.
December . .	101	83	62	S.S.E. and S.W.; dry.

The influence of the hot winds which blow over the sandy surface of the interior, are occasionally experienced here during summer, when the air becomes so arid, as to create a parched disagreeable sensation in the mouth and organs of respiration, accompanied by restlessness and slight febrile excitement. Dew is very rarely deposited, and there is a deficiency in the supply of rain, though not so great as at some of the stations further to the eastward. Notwithstanding these peculiarities, however, the climate is uncommonly salubrious, and severe or protracted indisposition is of rare occurrence among the troops.

Advancing towards the frontiers of Caffraria, the several posts will now be noticed in succession, according to their respective distances from Graham's Town.

HERMANUS KRAAL, now FORT BROWN,

Hermanus Kraal.

Nearly 18 miles north-east of Graham's Town, is situated on a rising ground close to the banks of the Great Fish River, and surrounded on every side by bare rocky hills, of slight elevation. The soil along the banks is of good quality, affording excellent pasturage, but beyond that, is light and sandy, and the surface either barren or thickly covered with bush. The station suffers much from want of rain; indeed, during a great part of the year the bed of the river is nearly dry. Owing to this circumstance, the supply of vegetables is very scanty, and having to be brought from a considerable distance, they are too dear to admit of being in general use among the troops.

The strength of the garrison has varied from a Captain's to a Subaltern's party, under the medical superintendence of an officer at Graham's Town, who occasionally visits them.

The buildings occupied by the troops during the period under review, were of temporary construction, some formed of unburnt bricks, others of rough stakes, interwoven with branches, and plastered with clay; but of late, permanent barracks have been erected of more substantial materials, and in every respect well adapted for the purpose. A small hospital is also to be built within the fort, affording accommodation for 10 patients.

Owing to this post being surrounded by bare rocky ground, and in the vicinity of an arid and sandy expanse of country, the temperature is very high during summer; the winds from the interior are often insufferably hot, and succeeded by close sultry evenings equally oppressive. During the winter the breezes are cool and refreshing, and if there has previously been a good supply of rain, that season of the year is described as very pleasant.

CAFFRE DRIFT.

Caffre Drift.

This post, which lay about 35 miles south-east from Graham's Town, was destroyed by the Caffres in the end of 1834, and does not appear to have been since rebuilt; but as it was occupied by our troops during the period under review, a slight topographical description of it is necessary.

It stood on a tongue of land formed by the junction of a small stream, called the Kap, with the Great Fish River, about nine miles from the sea. For about 20 miles in the direction of Graham's Town, the country is an extensive flat, which reaches all the way to the ocean; but to the north it is abrupt, rocky, and in many parts so covered with bush as to be almost impassable. In the immediate vicinity of the post, however, the country is open, and except in the ravines by the river side, free from bush. The soil, though light, affords good pasturage, but very little of it is under cultivation.

The post originally consisted of a quadrangular building of stone, defended by a pallisade, and containing two long barrack-rooms for the troops, with an hospital, and accommodation for the officers. While occupied, a company of the Cape Corps was generally divided between it and another small station, called—

THE GUALANA POST,

Gualana Post.

Lying on the other side of the Great Fish River, and about 16 miles distant, in a north-westerly direction. The country presents a pleasing variety of hills, affording excellent pasturage for cattle, and valleys which, being well watered by numerous springs from the high grounds, and having a rich soil, readily admit of cultivation. This part of the province has lately been given up to the Caffres; but while in our possession the

detachment stationed there lived in huts, formed of stakes, interwoven with branches, and plastered with mud. From their vicinity to the sea, the climate of this and the Caffre Drift post is described as having been more agreeable, and less liable to sudden alternations than most of the others on the frontiers; rain was also more abundant, and the hot winds less frequent and by no means so oppressive.

Beyond the Great Fish River, and at the distance of 44 miles N.N.E. of Graham's Town, there was also a post of considerable importance, called—

FORT WILTSHIRE.

It stood close to the banks of the Keiskamma River, shut in on every side by rising grounds, forming a kind of natural basin, in which the free circulation of the air was materially impeded. This circumstance rendered the heat much more oppressive than at any of the other outposts; indeed, in the middle of summer the thermometer has occasionally risen to 111° in the shade, and remained at that height for several hours. The station also suffered from great deficiency of moisture, many months having often passed without rain, and when any fell it was generally accompanied by thunder-storms.

The country in the vicinity is described as being very broken, forming a succession of hills of no great elevation, the soil in general stony and but little calculated to retain moisture, so that the rain drained off into the river almost as soon as it fell; there was consequently very little land fit for cultivation in the vicinity, and even the herbage was scanty, though of excellent quality.

A detachment of about 100 men was generally quartered here, consisting of Infantry of the Line and a party of the Cape Corps. The barracks were built of brick in the form of a square and connected with bastions, leaving a small area in the centre: many complaints were made regarding them during the period they were occupied, but as they have now been all destroyed, it is unnecessary to advert to that subject.

Fifty miles N.E. of Graham's Town, lies another post, which, according to the present defensive arrangements for these frontiers, is likely to become of considerable importance, viz.—

FORT BEAUFORT.

This fort stands on a small elevation about 50 feet above the Kat, one of the principal tributaries of the Great Fish River, having some gently rising ground in front, and backed by a high range of mountains in the distance.

The Kat seldom dries up even during the hottest season, nor is it liable to overflow like several of the rivers we have described. The banks, as well as the numerous ravines with which each side of the river is indented, are clothed with wood, but in other parts, the country is generally open; the soil is composed of a rich mould, and as it enjoys the benefit of fertilizing showers during 60 or 70 days in the year, vegetation is more abundant than at the other stations; there is little cultivation, however, of any kind in the vicinity.

The climate is much more temperate than at Fort Wiltshire; the hot winds are not so oppressive, though the summers are occasionally sultry. During the depth of winter, frosts are frequent, but never severe, and the station enjoys a high character for salubrity.

For several years antecedent to 1834, the garrison consisted of the head quarters of the Cape Corps, and a Captain's detachment of Infantry of the Line, amounting in all to about 130 men. They were accommodated in a long substantial brick building, erected by themselves about ten years ago; but under the new arrangement for the defence of the frontier, it is proposed to maintain a much larger force, for whom several additional barracks, with a suitable hospital, are about to be erected.

Proceeding about 20 miles farther in a north-easterly direction, towards the sources of the Kat River, the next station is—

FORT ARMSTRONG.

This fort stands near the banks of the Kat River, on a high promontory, which, by the windings of that stream and its tributaries, is converted into a kind of peninsula, accessible on one side only. From the facility of defence thus afforded, and the circumstance of nearly 4000 Hottentots having settled in the vicinity, the position has of late grown into considerable importance.

This part of the country being a natural basin, enclosed on every side by mountains several thousand feet in height, has the advantage of being well watered by numerous rivulets from the high ground which are never dry even in summer. These rivulets being also very tortuous in their course, afford ample scope for irrigation, by means of which cultivation is carried on to a considerable extent.

Being surrounded by bare precipices, and sandy hills, the temperature of the fort is very high in summer. Hot winds from the north-west are occasionally experienced at that period, but in winter the cold is often severe, especially during the night, and so sudden are the changes of temperature, that the thermometer has been known to range from the freezing point to 80° in the course of a few hours. The climate differs from that of the stations to the southward, being more damp, and subject to heavy rains and thick fogs. The bottoms of the valleys are frequently moist and in some places marshy, giving rise to exhalations, but in no respect injurious to the health of the troops.

Cape of Good Hope.

II. Eastern Frontier District.

Fort Wiltshire.

Fort Beaufort.

Fort Armstrong.

Cape of Good Hope.
 II. Eastern Frontier District.

Prior to the last Caffre war, the detachment here did not, in general, exceed 50 men of the Cape Corps, under the medical charge of an assistant-surgeon, who were quartered in small huts, formed of stakes and wicker-work, plastered with mud. Owing to the increasing importance of the station, that force is now doubled, and a permanent barrack is to be erected for them, with hospital accommodation for 10 patients.

Besides these posts, several others have been established since the termination of the Caffre war, in 1835, but, as this portion of the investigation does not extend to that period, it seems unnecessary to refer to them. We have also omitted to notice a few of the smaller outposts, at which troops have occasionally been quartered, during the period under review, because a description of them would have extended the Report to an undue length, and it seems only essential to the topics we have to elucidate, that such localities should be noticed as have been constantly in the occupation of a considerable portion of the force.

Rations and Diet.

The rations issued to the troops on the frontiers are the same as at Cape Town, but, though cattle and sheep are plenty, the meat is sometimes so lean, at stations subject to long drought, as to render the issue of an additional quantity necessary. Except at Port Elizabeth and Graham's Town, much inconvenience has also been experienced from want of vegetables; and, where the supply is dependent on the wheat grown in the vicinity, the bread is frequently of very indifferent quality. Sometimes, when vegetables are very scarce, a quantity of rice is issued to the soldier as part of his ration.

Having now described the most important of the localities in which the troops have been posted, and the different circumstances by which their health is likely to have been affected, we shall proceed to show the extent of sickness and mortality on the frontiers, but, in order to do so with accuracy, it is necessary to avoid including those years when, in consequence of warfare, large bodies of irregular troops were employed with those of the line. For this reason the following table is confined to the period from 1822 to 1834, and refers only to the white troops, the influence of the climate upon the Hottentot corps must be shewn by separate tables.

TABLE III.
 Showing the Admissions into Hospital and Deaths among the White Troops serving on the Frontiers of the Cape of Good Hope.

Years.	Mean Strength, per War Office Returns.	Admissions into Hospital.	Deaths, per Medical Returns.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1822	627	348	7	555	11
1823	600	418	5	683	8
1824	470	293	4	623	9
1825	350	302	4	863	11
1826	385	309	4	803	10
1827	370	344	1	930	3
1828	357	464	6	1,300	17
1829	588	621	6	1,056	10
1830	577	639	7	1,107	12
1831	597	572	8	958	13
1832	561	524	4	934	7
1833	563	464	7	824	12
1834	585	442	2	756	4
Total ..	6,630	5,740	65	..	..
Average	510	442	5	866	9.8

From these results, as well as from what was before stated in regard to the mortality among the civil population, there can be no doubt that this portion of the colony is more favourable to health than the United Kingdom—the ratio of admissions into hospital, annually, being relatively as 866 to 929, and the deaths as 9.8 to 14.

In order to ascertain the total mortality, it is necessary, however, to add to the above deaths from disease the following, which took place from accidental causes, viz.—

Drowned	6
Killed by the Caffres	4
„ by an elephant	1
Found dead	2
Excessive intoxication	1
Total	14

making the aggregate mortality, from all causes, 12 per thousand annually, which is the lowest yet observed in any colony.

It will be interesting here to ascertain the diseases from which the troops in this part of the colony are so exempt as to reduce the sickness and mortality below what is usual in their native country. To elucidate this point there has been framed from Abstract No. II. of Appendix, the following Table which will be found to exhibit the influence of the same classes of diseases among troops in this colony and the United Kingdom:—

Cape of Good Hope.

II. Eastern Frontier District.
Table IV.
Showing the principal Diseases among the Troops serving on the Frontiers of the Cape of Good Hope.

	ADMISSIONS.			DEATHS.		
	Cape Frontiers.		United Kingdom.	Cape Frontiers.		United Kingdom.
	Total among whole Force in 13 Years.	Annual Ratio per 1000 of Mean Strength.	Annual Ratio per 1000 of Mean Strength.	Total among whole Force in 13 years.	Annual Ratio per 1000 of Mean Strength.	Annual Ratio per 1000 of Mean Strength.
By Fevers	537	81	75	8	1.2	1.4
Eruptive Fevers . . .	2	..	3	..	..	.1
Diseases of the Lungs	541	82	148	16	2.4	7.7
" Liver.	140	21	8	7	1.	.4
" Stomach	584	88	94	15	2.3	.8
and Bowels . . . }						
Epidemic Cholera. . .	..	..	4	..	..	1.2
Diseases of the Brain .	65	10	6	4	.6	.7
Dropsies	10	2	1	3	.5	.3
Rheumatic Affections .	396	59	50	..	1.8	1.4
Venereal	813	123	181	..		
Abscesses and Ulcers .	669	101	133	1		
Wounds and Injuries .	1,104	166	126	4		
Punished	168	25	8	..		
Diseases of the Eyes .	283	43	19	..	..	..
" Skin	65	10	29	..		
All other Diseases. . .	363	55	44	7		
Total	5,740	866	929	65	9.8	14.

The comparison afforded by this table shows that the low ratio of sickness and mortality among the troops in this part of the colony has been mainly attributable to the extreme rarity of diseases of the lungs. Pneumonia and consumption, in particular, are still less common than at Cape Town, though, from generally received opinions as to the influence of sudden atmospherical vicissitudes in inducing them, the reverse might have been anticipated, seeing that at some of the stations the thermometer in summer has been known to range from 110° to 64°, and in winter from 75° to 32°, in the course of a few hours. This exemption cannot altogether be accounted for by the absence of moisture and extreme aridity of the soil, because the same diseases have been found twice as prevalent and twice as fatal in Malta, where, during the summer months at least, similar causes are in operation, with the supposed advantage also of a high temperature little subject to extreme variations.

Fevers are still more rare and less productive of mortality than at Cape Town; in fact, so far as we have yet been able to ascertain, no part of the world seems to enjoy so great an exemption, particularly as regards those of the remittent and intermittent types. Though this exemption might in some measure be anticipated, from the absence of all marshy ground, and the otherwise favourable nature of most of the localities in which the troops are posted, yet that character will not apply to all. Fort Wiltshire, Caffre Drift, and Fort Brown, for instance, are situated close to the bank of a river, which being either dry or stagnant during summer, might be expected, under a high temperature, to give rise to exhalations such as are supposed to induce febrile diseases in the vicinity of *fumiares*, or beds of mountain torrents, in Spain, Portugal, and the Ionian Islands.

Diseases of the brain prove only half as fatal as at Cape Town, and are even less so than in the United Kingdom; their rarity is the more remarkable considering the exposure to which the peculiar nature of their duties has often subjected the troops, under a temperature which, during summer, generally ranges from 95° to 110° in the shade at midday, and when the soldier has frequently no better protection from its influence than the rude wicker huts constructed by himself at the out-stations.

Venereal affections are more rare than in the Cape Town district, probably from there being fewer opportunities of contracting them at the remote out-stations. The proportion punished is also lower, and, as at Cape Town, has undergone a rapid diminution of late years.

Though the foggy damp atmosphere, and sudden gusts of wind, to which the prevalence of Rheumatic affections in the Cape District has been attributed, are but little experienced on the frontiers, that class of diseases is exceedingly common there, indeed twice as much so as in the severe climates of Nova Scotia and New Brunswick; nor are they confined to the white troops alone, for even the Hottentots suffer to a still greater extent, as we shall hereafter have occasion to show by the Hospital Returns of that force.

Though, from the difficulty of distinguishing between mortality resulting from climate, and that occasioned by the warfare in the frontier provinces during 1835 and 1836, it has become necessary to omit the details of these two years, it may be proper to advert to the prevalence, at that period, of a disease which has, generally, been of rare occurrence in this healthy colony.

Towards the end of June 1836, very decided symptoms of scurvy began to manifest themselves among part of the 75th Regiment at Fort Armstrong, and subsequently extended to most of the other stations along the frontier the total number of cases reported, either

Cape of Good Hope.

II. Eastern Frontier District.

as scorbutus or purpura, were 134, of which 4 proved fatal; the others readily yielded to change of air, with improved diet and accommodation.

Considerable difference of opinion exists as to the causes to which this disease was attributable, but the circumstances in which the troops were then placed seem sufficient to account for it. Their active service had recently terminated—a period when troops are generally most amenable to disease. The weather was exceedingly variable, the thermometer ranging from 80° at midday to 45° at night, and though the latter is deemed very cold in this climate, the huts were without fire-places, the floors were of clay or earth, and the soldiers generally slept on them without stretchers, and with only one blanket. Except a few pumpkins occasionally purchased from some of the neighbouring tribes, no vegetables could be procured, and a ration of rice, issued in lieu of them, was found a very inadequate substitute. The meat too, had, for nearly 12 months previous, been of very inferior quality, and the water was bad, as no rain had fallen for about five months. The officers and non-commissioned officers, who had the means of obtaining additional comforts, were exempt from the disease, and it did not at all affect the Hottentot troops.

Having concluded these observations in regard to the diseases of the white troops, we shall next advert to those by which the Hottentot troops have been affected during the same period.

HOTTENTOT TROOPS.

Hottentot Troops.

By extending these statistical investigations over the numerous colonies of the British Crown, not only are we enabled to ascertain the influence of their varied climates on the constitution of our own countrymen, but, in many instances where native corps have been formed, we can trace the diseases, and estimate the mortality, to which the aboriginal inhabitants are subject, and thereby supply a most important desideratum in the physical history of mankind, which could probably never have been obtained, with equal accuracy, from any other source.

We have in this way ascertained the diseases and mortality of the negro, both on his native continent and the foreign soil of the West Indies; we now proceed to a similar inquiry regarding the Hottentots, composing the Cape Corps, who, as already stated, are quartered along the eastern frontier of this colony.

Till 1828, this corps consisted of from 350 to 500 Cavalry and Infantry, but, in that year, the Infantry was reduced, and the Cavalry, being the most effective species of force for service on the frontier, was augmented to about 250. With the exception of a few European Non-Commissioned Officers, they are all Hottentots. At first the corps was raised and kept up by a species of conscription, because, owing to the natural indolence of that race, and the restraint of military life being so much at variance with their former habits, great reluctance was manifested to entering it; but, since the advantages of the service have come to be better appreciated, the corps has been kept up by voluntary enlistment.

Duty and Employment.

The Hottentot soldiers are generally of low stature, seldom exceeding 5 feet 4 inches, but, though of very slight conformation, with narrow chests, they have shown themselves capable of undergoing great bodily fatigue. The disinclination at first manifested to the duties of military life gradually wore off, under the influence of a mild discipline, and the great majority of them have since become quiet steady soldiers, very submissive to authority, and of the utmost service for the duties of the frontier. Being possessed, in an eminent degree, of that acuteness of vision and quick perception, for which aboriginal tribes are sometimes so remarkable, they can, by indications totally imperceptible to an European eye, discover and follow up the traces of cattle stolen by the Caffres, which they frequently succeed in recovering, when the exertions of other troops would, in all probability, have proved unavailing.

If any of the colonists are reported to have lost cattle, a party of this corps is ordered out to recover them, and, if not thus employed, they are generally engaged in patrolling that portion of the frontiers which extends between the out-stations, and is most open to the incursions of the Caffres. They have thus little intermission of duty during the day, and every third night is passed on guard or picquet. This duty, though severe, is well suited to men of a wandering disposition, and who, probably, would never submit to the confinement and restraint of a garrison life. They are mounted on small hardy horses, well adapted for the nature of the service in which they are engaged, and the frequent privations of water and fodder they have to endure.

Rations and Diet.

Intemperance in the use of spirituous liquors is, unfortunately, the besetting sin of the Hottentot, as well as the British soldier, and to this the former adds a pernicious mode of exciting intoxication by smoking hemp in large quantities. He is also apt to indulge in great excesses of animal food, when it can readily be procured. His pay and rations are the same as those of the British soldier, but occasionally the allowance of meat has been increased to two pounds a day, when there was a difficulty of obtaining a sufficient quantity of vegetable nutriment, or when, from the scarcity of fodder, the meat was of very inferior quality. Most of these soldiers have wives and families who are allowed rations without any limit as to number. The principal barracks and hospital occupied by them have already been adverted to, in our description of the frontier stations. At small out-posts, where no permanent buildings are provided, they are in the habit of erecting for themselves huts of wicker-work and mud, termed “Wattle and Daub,” which, though humble in appearance, afford healthy accommodation.

Accommodation.

Notwithstanding their frequent exposure, and the harassing nature of their duties, the

sickness and mortality among this description of troops has been exceedingly low, as will be seen by the following Table, showing the admissions and deaths from 1822 to 1834 inclusive :—

Years.	Strength.	Admissions into Hospital.	Died.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1822	292	258	4	884	14
1823	310	281	3	906	10
1824	394	460	1	1,163	3
1825	452	422	11	934	24
1826	471	495	6	1,051	13
1827	472	357	6	756	13
1828	267	131	2	491	7
1829	233	179	2	768	9
1830	247	168	3	680	12
1831	263	203	2	772	8
1832	268	147	2	548	7
1833	247	172	2	696	8
1834	220	129	1	586	5
Total .	4,136	3,402	45	..	..
Average	318	262	3	823	10·9

Besides the number above stated, two were killed by the Caffres, in 1832, and there may probably have been a few other deaths, from accidental causes, which cannot now be traced ; but, in all, the mortality has not exceeded 12½ per thousand, which strongly corroborates the conclusions formerly arrived at, in regard to the extreme salubrity of these frontier districts. The proportion of admissions, however, may have been stated rather lower than the actual extent of sickness warrants, because the Hottentot troops have a great disinclination to come into hospital, and generally have recourse to native remedies for slight ailments, which, consequently, do not appear in the Returns.

For the purpose of showing to what extent the Hottentot race are affected by the same classes of diseases which prevail among the white troops in this part of the colony, the following Table has been framed from Abstract No. III. of Appendix :—

	ADMISSIONS.			DEATHS.		
	Hottentot Troops.		White Troops.	Hottentot Troops.		White Troops.
	Total among whole Force in 13 Years.	Annual Ratio per 1000 of Mean Strength.	Annual Ratio per 1000 of Mean Strength.	Total among whole Force in 13 Years.	Annual Ratio per 1000 of Mean Strength.	Annual Ratio per 1000 of Mean Strength.
By Fevers	272	66	81	3	·7	1·2
Eruptive Fevers . . .	9	2	..	..	..	..
Diseases of the Lungs.	443	107	82	16	3·9	2·4
" Liver .	16	4	21	2	·5	1·
" Stomach } and Bowels . . . }	371	90	88	20	4·8	2·3
Diseases of the Brain .	18	4	10	..	..	·6
Dropsies	3	1	2	..	..	·5
Rheumatic Affections.	259	70	59	2	1·	1·8
Venereal "	268	65	123	..		
Abscesses and Ulcers .	382	92	101	..		
Wounds and Injuries .	770	186	166	1		
Punished	232	56	25	..		
Diseases of the Eyes .	117	28	43	..	1	
" Skin .	32	8	10	..		
All other Diseases . .	180	44	55	1		
Total	3,402	823	866	45	10·9	9·8

From the above comparison we learn, that febrile diseases are still more rare among the Hottentots than the White Troops; indeed, it may be doubted whether any race of men in any quarter of the globe would be found to exhibit so great an exemption from them. All the cases under treatment, except two, were of the common continued type, and so slight that only one death occurred in 270 attacks.

Eruptive fevers, which sometimes prove a source of great mortality among native tribes, have, during the period under review, been unknown among the Hottentots, with the exception of nine slight cases.

It will be observed, that the ratio of admissions and deaths by diseases of the lungs appears to be higher than among the White Troops. This has been attributed to the narrowness of chest, already stated as a peculiarity in the conformation of the Hottentots,

Cape of Good Hope.
II. Eastern Frontier District.

Table V.
Showing the Admissions into Hospital and Deaths among the Hottentot Troops serving at the Cape of Good Hope.

Table VI.
Showing the principal Diseases among the Hottentot Troops serving on the Frontiers of the Cape of Good Hope.

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II. Eastern Frontier District.

and also to the seeds of disease being frequently sown in early life when, in their capacity of herdsmen to the colonists, they are exposed, with a very scanty supply of clothing, to the inclemency of the weather. These causes, however, cannot have operated to any great extent, as the prevalence of inflammation of the lungs among them, compared with the White Troops, has been only as 24 to 15; of Catarrhs, as 75 to 60; while the proportion of each race attacked by Consumption has been to within a fraction the same, viz., $3\frac{1}{4}$ per thousand annually. The proportion of deaths by that disease is certainly higher among the Hottentots; but it must be kept in view that many of the White Troops may have been invalided, whose deaths at Cape Town or on their passage home cannot be traced; whereas the Hottentots remain under treatment till the disease terminates in death or recovery.

Notwithstanding their frequent intoxication and constant exposure to a temperature which, in summer, is rarely equalled in any part of the world, these troops enjoy a very great exemption from diseases of the liver; the same remark applies also to diseases of the brain, of which, so far as can be traced, no fatal case has occurred during the whole period under observation.

The diseases from which they suffer most are those of the bowels, whereby nearly half the deaths in hospital have been occasioned. All the fatal cases, but one, have been from inflammation or dysentery, which though only in a slight degree more prevalent among this class of troops than Europeans, are decidedly of a more serious character, being frequently of long standing before they come under treatment, owing to the disinclination of the Hottentots to subject themselves to the confinement and restraint of hospital. The want of a due proportion of vegetable and farinaceous food, from which they occasionally suffer at some of the outposts, their frequent privations in long excursions into the interior, and the excesses in the use of animal food, in which they are apt to indulge when a sufficiency comes within their reach, are all causes which have been assigned, and are no doubt likely to have operated, in creating this liability.

These troops are only one half as subject to venereal affections as the others on the frontier, but this is easily accounted for by there being no restriction on the number permitted to marry, and draw rations for their wives and children. So generally do they avail themselves of this privilege, that by the Returns of 1836 there were 75 wives and 148 children in receipt of rations in a Corps amounting only to 255; whereas the proportion permitted to marry and enjoy the privilege of rations in a regiment of the Line amounts only to six per hundred, a circumstance which must have a material influence on the relative frequency of venereal affections.

The proportion who have undergone corporal punishment is more than twice as high as among the white troops, but it has been much reduced of late years, as will appear from the following statement of the number, and ratio per thousand of the strength annually sent into hospital on that account:—

Years	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	Total.	Average.
Number corporally punished	35	18	34	23	27	16	7	27	24	12	2	3	4	232	18
Ratio per 1000 of strength corporally punished . . }	120	58	87	51	57	34	26	116	97	46	7	12	18	..	57

As we possess no further information of any importance in regard to this class of troops, we shall now proceed to the other sections with which it is usual to conclude these Reports.

SECTION II.

On the extent of Invaliding among the Troops serving in the Cape of Good Hope Command.

PRIOR to 1825 the information on this head is very defective, the total number sent home is all that can be stated; and as it is well known that, owing to the reductions then taking place, a large proportion of these were recommended for discharge merely in consequence of having completed the usual period of service, it has not been deemed necessary to submit information which might lead to erroneous conclusions as to the influence of this climate in inducing disabilities.

Since 1825, however, the information on that subject is much more specific, as will be seen from the following Tables:—

Years.	Mean Strength of Troops in the whole Command.	Discharged totally unfit for further Service.	Number found fit for Garrison Duty only.	Total of both Classes.	Ratio per 1000 of Mean Strength Invalided of both Classes.	Number found fit for further Service, and sent to their Depôts or Corps.
1825	1,696	58	..	58	34	1
1826	1,712	26	..	26	15	20
1827	1,793	29	4	33	18	10
1828	1,511	27	2	29	19	7
1829	1,759	39	14	53	30	3
1830	1,751	4	5	9	5	1
1831	1,750	12	1	13	7	1
1832	1,675	5	..	5	3	..
1833	1,659	11	1	12	7	..
1834	1,670	17	3	20	12	2
1835	1,667	10	1	11	7	8
1836	1,589	28	1	29	18	4
Total .	20,232	266	32	298	15	58

Cape of Good Hope.
Invaliding.

Table VII.
Showing the Number Discharged Annually, as unfit for Active Service, of the White Troops serving in this Command.

Thus the ratio discharged as unfit for active service has amounted to about 15 per thousand of the force annually, being lower than in any of the other stations which have yet come under review. This may probably be attributed to many of the soldiers, as they advance in life, availing themselves of the privilege of free discharges without pension, for the purpose of remaining in the colony, because it offers considerable inducements to settlers. We have already shewn that the extent of invaliding does not depend materially on insalubrity, owing to the number who, in all healthy colonies, live to attain that age when they are discharged as “worn out,” or for “rheumatic pains” unfitting them for the duties of active service.

The disabilities or diseases of those found fit for garrison duty only are not stated in the Returns, but the following are the causes assigned for the discharge of such as have been deemed totally unfit for further service:—

Diseases or Causes of Disability.	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	Total.
Dysentery and Hepatic	5	6	4	1	1	..	..	..	..	1	1	..	19
Eye Diseases	4	1	3	3	1	..	1	..	2	..	..	1	16
Fractures, Dislocations, Con- tractions, Wounds, and Hernia	8	2	7	8	2	2	4	..	..	5	3	7	48
Mental Diseases	2	1	3	..	..	..	3	1	..	..	..	2	12
Pulmonic Diseases	8	5	4	4	5	2	..	1	1	4	3	4	41
Rheumatism and Chronic Pains	13	6	1	2	11	..	..	..	2	..	..	2	37
Ulcers, Varices, & Strictures Venereal	5	3	1	2	11	..	1	..	1	4	..	3	31
Cachexia and Scrofula	4	..	..	..	..	..	1	1	4	..	1	1	12
Paralysis and Epilepsy	6	..	1	4	2	..	1	2	..	..	1	..	17
Dropsy and Visceral . . . . .	..	..	..	..	..	..	..	..	..	1	..	..	1
Deafness and Impediment of Speech . . . . .	..	..	..	..	..	..	1	..	..	1	..	1	3
Worn-Out	3	1	5	3	6	..	..	..	1	..	1	4	24
Total	58	26	29	27	39	4	12	5	11	17	10	28	266

Table VIII.
Showing the Diseases or causes of Disability of those found unfit for further Service.

During the same period 17 died on their passage home, of various diseases not specified in the Returns from which the above Table is compiled.

Cape of Good Hope.

Invaliding.

On comparing the relative proportion sent home for pulmonic affections from different Colonies with what is stated in the preceding Table, we obtain a strong corroboration of the deductions in a previous part of this Report as to the exemption from that class of diseases manifested at the Cape. For instance:—

	Pensioned for various Diseases.	For Pulmonic Affections.
In Gibraltar, of	581	there were 155 or 1 in $3\frac{3}{4}$
Malta, of	465	„ 125 „ 1 „ $3\frac{3}{4}$
Ionian Islands, of	717	„ 119 „ 1 „ 6
British America, of	1202	„ 298 „ 1 „ 4
Windward and Leeward Command, of	1267	„ 167 „ 1 „ $7\frac{1}{2}$
Jamaica, of	415	„ 71 „ 1 „ 6
Cape of Good Hope, of	266	„ 30 „ 1 „ 9

Thus, as regards the invaliding, as well as the sickness and mortality, the influence of pulmonic diseases is less marked at the Cape than in any of the other colonies of which the statistical details have yet been investigated.

The preceding observations refer to the invaliding among the White Troops only. We possess no similar information in regard to the Hottentots; but as most of them enlisted for seven years only, and obtained their discharge at the end of that period, there was an opportunity of weeding the corps of inefficient men without resorting to the necessity of invaliding.

SECTION III.

On the Number constantly Sick in Hospital among the Troops serving in the Cape of Good Hope Command.

Mean Sick.

WE have thought it expedient not to submit the usual details on this head, in consequence of the sick of detachments on the frontiers being occasionally omitted in the Returns, which has brought the average considerably under what appears probable, even after making all due allowance for the recognized salubrity of the climate. The sick of the Cape corps, too, are frequently included with those of the regiments of the line, which renders it still more difficult to arrive at accurate conclusions. It may be sufficient to state that in the Cape District the proportion of sick time to each soldier, and average duration of each attack of sickness, appears to be much the same as in the United Kingdom, and that on the frontiers it is about one-third less.

SECTION IV.

On the Influence of Age and Length of Residence on the Mortality of Troops serving in the Cape of Good Hope Command.

Influence of Age,
&c.

THE Hottentot troops are too few, and the returns of their ages extend over too short a period, to admit of any positive results as to the influence of age on the mortality of that class; but the following extracts from Abstract No. IV. of Appendix, will supply that information regarding the White Troops serving throughout the Command:—

PERIOD.	Under 18 Years.		18 to 25.		25 to 33.		33 to 40.		40 to 50.		Total of all Ages.	
	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died
1st January to 31st December 1830 .	11	..	347	1	186	2	21	1	3	1	568	5
„ „ „ 1831 .	18	..	844	10	653	13	99	3	15	..	1,629	26
„ „ „ 1832 .	10	..	757	10	721	12	91	2	13	2	1,592	26
„ „ 1833 to 31st March 1834 .	10	..	376	1	1,080	25	86	2	19	..	1,571	28
1st April 1834 „ „ 1835 .	6	..	278	3	1,147	23	106	2	30	..	1,567	28
„ „ „ 1835 „ „ 1836 .	8	1	236	3	1,114	25	93	4	38	1	1,489	34
„ „ „ 1836 „ „ 1837 .	6	..	260	1	1,026	26	110	5	38	1	1,440	33
Total for $7\frac{1}{2}$ years	69	1	3,098	29	5,927	126	606	19	156	5	9,856	180
Deduct a twenty-ninth part of the deaths, to ascertain the mortality of 7 years exactly . . . . .	..	..	..	1	..	4	..	1	..	..	..	6
Total for 7 years	69	1	3,098	28	5,927	122	606	18	156	5	9,856	174

In this calculation have been included the deaths of 11 invalids at sea on their passage home, because they were clearly attributable to the climate of the colony. For an opposite reason, twelve killed in action have been deducted, as their deaths could not be taken into view in estimating the influence of climate on mortality; and the deaths an strength of the Artillery, and Sappers and Miners, are also excluded, because these corps transmit no returns of age and service.

On this principle the following Table has been framed, to exhibit the mortality at each period of life, in ratios per thousand of the strength :—

	Under 18 Years.	18 to 25.	25 to 33.	33 to 40.	40 to 50.	Total of all Ages.
Ratio of Deaths annually, per 1000 of Mean Strength . }	14·0	9·0	20·6	29·7	32·0	17·6

Cape of Good Hope.
Influence of Age,¹
&c.

Table IX.
Showing the in-
fluence of Age on
Mortality among
the White Troops
serving in this
Command.

On comparing with this Table the mortality at the same periods of life among the Dragoon Guards and Dragoons serving in the United Kingdom, those between the ages of 18 and 25 are found to suffer less at the Cape, but the reverse, at more advanced ages, when the mortality increases with the same rapidity as among the troops in North America.

This rapid deterioration of constitution as the soldier advances in life cannot here be attributed to former service in tropical or unhealthy climates; for the last tour of foreign service of the 72nd Regiment was at the Cape, that of the 75th was in the Mediterranean, and the 98th Regiment was sent out in 1826, shortly after being raised. The mortality at advanced ages, too, among the civil population is not greater, or perhaps so great, as in the United Kingdom; consequently there seems good reason to believe that a peculiarity thus confined to the troops alone may, in some measure, be attributable to habits of intemperance which, though they add little to the mortality of the youngest class, are likely, if persisted in, to sow the seeds of diseases which develop themselves more fully as the soldier advances in life.

That the health of soldiers does not improve by length of residence in this colony, may not only be inferred from the facts already stated, in regard to the low mortality among the youngest class, of whom drafts arriving in the Command are for the most part composed, but is directly proved by the number of deaths in each of the corps serving there during the last six years included in this Report, viz.—

	72nd Foot arrived in 1828.	75th Foot arrived in 1831.	98th Foot arrived in 1825.	Total.
Died in 1831 . .	8	8	10	26
„ 1832 . .	13	9	4	26
„ 1833 . .	12	6	10	28
„ 1834 . .	16	2	10	28
„ 1835 . .	13	10	11	34
„ 1836 . .	8	13	12	33
Total . .	70	48	57	175

Table X.
Showing the in-
fluence of Length
of Residence on
Corps serving in
this Command.

Thus, though there is no reason to suppose that any deterioration has taken place in the climate of the colony, the mortality has gone on increasing, the longer the troops remained there, and the 75th Regiment, which arrived last, has suffered least.

SECTION V.

On the Sickness and Mortality among Officers serving in the Cape of Good Hope Command.

As a considerable number of the officers were employed at detached stations on the frontiers, from which Medical Returns were not regularly received, it has not been deemed expedient to refer to the sickness and mortality among that rank antecedent to 1822, but since that period it may be estimated as under.

The average strength during the fifteen years from 1822 to 1836 (including Staff) was about 110, the aggregate strength, as stated in Abstract No. V. of Appendix, is 1651.

Sickness and Mor-
tality of Officers.

It would also have been of importance to have given separate results for the White Troops and Hottentot Corps, but as the rate of mortality and prevailing diseases is much the same among both, the blending of them together is not likely to lead to any material error. The following results therefore include the whole force serving in the Command:—

Cape of Good Hope.
Influence of the Seasons.

	ADMISSIONS.				DEATHS.			
	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	Total by all Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	Total by all Diseases.
In 13 Januarys .	993	247	1,251	2,491	26	16	3	45
13 Februarys .	909	225	1,164	2,298	14	12	3	29
13 Marches .	927	228	1,099	2,254	16	6	2	34
13 Aprils .	839	190	1,099	2,128	22	10	2	34
13 Mays .	879	218	1,146	2,243	13	13	1	27
13 Junes .	836	208	1,005	2,049	20	11	3	34
13 Julys .	658	197	1,004	1,859	10	17	2	29
13 Augusts .	668	183	1,027	1,878	18	7	1	26
13 Septembers	677	242	1,141	2,060	13	8	5	26
13 Octobers .	786	204	1,187	2,177	10	15	.	25
13 Novembers	909	239	1,147	2,295	16	8	2	26
13 Decembers	856	228	1,070	2,154	20	12	1	33
Total, 13 Years	9,937	2,609	13,340	25,886	198	135	25	358

Table XII.
Showing the influence of the Seasons in producing Sickness and Mortality among the Troops in this Command.

These totals do not correspond exactly with what have been stated in a former part of the Report because it has not been practicable in every instance to ascertain when an admission or death took place. As the difference, however, has never exceeded a fortieth part of the whole, and may be held to extend equally over all the months, it can lead to no material error.

On referring to the admissions by acute diseases, which best shew the influence of the seasons, a very marked difference is observed in the relative salubrity of each month, the admissions from January to March, the most unhealthy quarter, being more numerous, in the proportion of 3 to 2, than from June to September, the healthiest. The deaths will be found to follow the same law, though not with equal regularity, as also the average constantly sick in each month, which from 1822 to 1834 was as follows:—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average Number constantly sick in each Month . . .	94	92	92	91	89	81	77	78	82	80	88	87

This station being, like St. Helena, to the southward of the Line, there is a difference of six months in the period at which the healthy and unhealthy seasons come into operation as compared with stations in the Northern Hemisphere, which will account for those months which are most sickly in the West Indies and Mediterranean being here the reverse.

APPENDIX TO REPORT
ON THE
SICKNESS, MORTALITY, AND INVALIDING
AMONG THE TROOPS
SERVING AT
THE CAPE OF GOOD HOPE.

CONTENTS.

	No. of App.		No. of App.
<i>Abstract showing the Admissions into Hospital and Deaths among the White Troops serving in the Cape District, from 1818 to 1836 inclusive</i>	1	<i>Abstract showing the Ages of the White Troops serving throughout the Colony, and Deaths at each Age, from January 1830 to 31st March 1837.</i>	4
<i>Ditto ditto among White Troops serving on the Frontiers of the Cape, from 1822 to 1834 inclusive</i>	2	<i>Abstract showing the Admissions into Hospital and Deaths among the Officers serving throughout the Colony, from 1822 to 1836 inclusive</i>	5
<i>Ditto ditto among Hottentot Troops serving at the Cape of Good Hope from ditto to ditto</i>	3	<i>Abstract showing the Admissions into Hospital and Deaths, in each month, among the Troops serving there, from January 1822 to December 1834</i>	6

Showing the Admissions into Hospital and Deaths among the WHITE TROOPS serving in the CAPE DISTRICT, from 1818 to 1836 inclusive.

Classes of Diseases.	Specific Diseases.	Years		1818		1819		1820		1821		1822		1823		1824		1825		1826		1827		1828		1829		1830		1831		1832		1833		1834		1835		1836		From 1818 to 1836																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		Strength		1291		1206		1220		1569		1385		1347		1318		1346		1327		1423		1154		1171		1174		1154		1114		1096		1085		586		748		Aggregate Strength 22,714																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	By each Disease.	By each Disease.	By each Disease.	By each Disease.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Fever.	Feb. Quot. Intermittens	2	..	1	1	11	2	1991	44																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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	Cont. Com.	51	..	58	3	108	3	107	..	62	2	118	2	167	4	258	9	126	1	120	6	114	6	110	..	75	1	81	2	86	1	83	..	88	..	61	1	51	1	1924	2	1	..			42	1

Showing the Admissions into Hospital and Deaths among the WHITE TROOPS serving on the Frontiers of the CAPE of GOOD HOPE, from 1822 to 1834 inclusive.

Classes of Diseases.	Specific Diseases.	Years		1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	From 1822 to 1834				
		Strength		627	600	470	350	385	370	357	588	577	597	561	563	585	Aggregate Strength 6630				
				Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Admitted.		Died.	
				By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.
Fevers.	Febris Intermittens	2	1	1	..	1	1	5	
	Remittens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cont. Com.	83	3	79	1	18	..	11	..	39	1	30	..	61	2	58	529	537	8	8	
	Synochus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Eruptive Fevers	Varicella	1	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	..	..
Diseases of the Lungs.	Pleuritis	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
	Pneumonia	13	..	8	..	4	..	6	..	8	1	4	..	10	1	15	94	..	..
	Hæmoptysis	1	..	2	..	2	..	2	..	1	..	..	..	1	..	1	11	..	..
	Phthisis Pulmonalis	1	..	2	..	1	..	1	..	1	..	1	..	1	..	1	22	..	..
	Catarrhus Acutus	5	..	11	..	7	..	10	..	9	..	21	..	41	..	31	316	541	1	16	
	Chronicus	1	..	1	..	2	..	3	..	15	..	24	..	5	..	2	81	..	..
	Dyspnoea Continua	..	..	3	..	..	..	1	..	1	..	1	..	1	..	1	8	..	..
Diseases of the Liver.	Asthma period. Conv.	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	7	..	..
	Hepatitis Acuta	4	..	5	..	3	..	4	1	3	..	3	..	5	..	6	54	140	3	7	
	Chronica	3	..	14	..	1	..	5	..	5	..	4	..	3	..	1	74	..	..
Diseases of the Stomach and Bowels.	Icterus	2	..	1	..	..	..	1	..	..	..	1	..	1	..	1	12	..	..
	Gastritis	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	..	..
	Enteritis	1	..	..	..	..	..	..	..	1	..	..	..	1	..	1	6	..	..
	Hæmatemesis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
	Dysenteria Acuta	27	2	31	..	3	..	32	3	11	..	5	..	33	1	9	185	584	9	15	
	Chronica	5	..	2	..	1	..	6	..	8	..	7	..	3	..	1	43	..	..
	Diarrhoea	9	..	4	..	24	..	10	..	5	..	16	..	28	..	18	158	..	..
	Colica	2	..	8	..	4	..	5	..	3	..	8	..	4	..	1	77	..	..
	Dyspepsia	..	..	1	..	3	..	4	..	6	..	7	..	3	..	2	42	..	..
	Obstipatio	2	..	6	..	3	..	12	..	2	..	16	..	7	..	4	63	..	..
Diseases of the Brain.	Cholera Morbus	..	..	..	..	1	..	..	..	2	..	..	..	1	..	..	7	..	..
	Phrenitis	..	..	..	..	..	..	..	..	1	..	..	..	2	..	..	4	..	..
	Cephalalgia	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
	Hydrocephalus	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	..	..
	Apoplexia	1	1	..	..	..	..	..	..	1	..	..	..	1	..	..	5	..	..
	Paralysis	5	..	4	..	1	1	..	4	..	1	19	65	1	4	
	Epilepsia	1	..	1	..	..	..	..	..	1	..	4	..	..	..	1	17	..	..
	Mania	..	..	1	1	..	..	2	..	..	..	1	..	1	..	1	6	..	..
Dropsies.	Amentia	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..
	Delirium Tremens	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5	10	..	..
	Anasarca	..	..	..	..	..	..	1	..	..	..	2	..	1	..	1	6	..	..
Rheumatic Affections.	Hydrothorax	1	1	1	1	1	1	..	3	10	3	3	
	Ascites	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
	Rheumatismus Acutus	15	..	16	..	4	..	13	..	13	..	9	..	26	..	52	195	..	..
Venereal Affections.	Chronicus	8	..	7	..	7	..	15	..	35	..	9	..	7	..	10	197	396	
	Odontalgia	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	4	..	..
	Syphilis Primitiva	..	..	..	..	2	..	5	..	..	..	2	..	19	..	21	55	..	..
	Consecutiva	3	..	..	..	2	..	..	..	2	..	6	..	1	..	..	15	..	..
	Ulcus Penis non Syph.	2	..	1	..	2	..	3	..	8	..	5	..	6	..	12	92	..	..
	Gonorrhoea	13	..	10	..	28	..	25	..	20	..	14	..	40	..	88	503	813	
	Hernia Humoralis	5	..	6	..	4	..	3	..	..	..	2	..	3	..	14	89	..	..
	Stricture Urethrae	1	..	1	..	1	..	1	..	2	..	1	..	3	..	1	12	..	..
	Bubo Simplex	3	..	2	..	1	..	..	..	..	..	4	..	1	..	14	35	..	..
	Cachexia Syphiloidea	..	..	..	..	..	..	..	..	..	..	1	..	3	..	..	5	..	..
Abscesses and Ulcers.	Paraphymosis	..	..	..	..	1	..	..	..	..	..	2	..	..	..	1	7	..	..
	Phlegmon et Abscessus	7	..	15	..	9	..	2	..	9	..	10	..	23	..	16	246	..	..
	Paronychia	1	..	1	..	1	..	1	4	669	
	Apostema Lumbare	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..
	Ulcus	15	..	27	..	12	..	15	..	10	..	17	..	26	..	45	412	..	..
Wounds and Injuries.	Fistula	1	..	..	..	..	..	..	..	1	..	..	..	1	..	2	6	..	..
	Luxatio	1	..	1	..	1	..	1	..	1	..	2	..	4	..	1	13	..	..
	Subluxatio	1	..	..	..	..	..	..	..	3	..	2	..	10	..	5	84	..	..
	Vulnus Incisum	27	..	26	1	14	..	15	..	9	..	13	..	23	..	22	294	..	..
	Sclopitorum	1	1	3	1104	
	Contusio	24	..	73	..	69	1	49	..	37	..	33	..	62	..	64	618	..			

Showing the Admissions into Hospital and Deaths among the HOTTENTOT TROOPS serving at the CAPE OF GOOD HOPE, from 1822 to 1834 inclusive.

Classes of Diseases.	Years Specific Diseases.	1822		1823		1824		1825		1826		1827		1828		1829		1830		1831		1832		1833		1834		From 1822 to 1834			
		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Aggregate Strength 4,136			
		292		310		394		452		471		472		267		233		247		263		268		247		220		Admitted.		Died.	
		Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	By each Disease.	By each Class of Diseases.
Fever.	Feb. Remittens . . .	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	19	..	4	..	17	..	9	..	270	272	1	3
	Cont. Com. . .	23	..	19	..	37	..	37	..	66	1	23	..	6	..	7	..	3	..	..	..	..	..	..	..	..	1	..	1	..	
	Synochus . . .	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	
Eruptive Fevers.	Varicella . . .	3	..	..	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	9	9	..	..
	Smallpox . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Lungs.	Pneumonia . . .	6	..	9	..	9	..	3	..	9	..	22	..	3	..	11	1	3	..	7	..	7	2	5	1	3	..	97	443	4	16
	Hæmoptysis . . .	1	..	..	..	5	..	..	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	1	..	10	..	10	..	
	Phthisis Pulmonalis . . .	1	1	1	1	..	..	1	1	3	1	2	2	1	1	..	..	3	2	..	1	..	..	2	..	..	14	..	2	..	
	Catarrhus Acutus . . .	34	..	17	..	34	1	36	..	4	..	36	..	1	..	6	..	8	..	18	1	20	..	10	..	3	..	227	..	..	..
	Chronicus . . .	2	..	..	..	10	..	22	..	37	..	8	..	2	..	2	..	..	..	2	..	..	..	..	..	..	85	..	..	..
	Asthma period. Conv. Dyspnœa Continua . . .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	3	..	3	..	8	..	..	..
Diseases of the Liver.	Hepatitis Acuta . . .	..	..	1	..	..	..	..	..	2	..	1	..	1	..	1	..	..	..	..	..	..	..	..	2	..	8	16	2	2	
	Chronica . . .	..	..	3	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	1	1	1	..	7	..	..	..
	Icterus . . .	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Diseases of the Stomach and Bowels.	Enteritis . . .	1	1	1	1	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	4	..	3	..	
	Dysentery Acuta . . .	14	1	12	1	6	..	16	5	28	3	9	2	5	1	3	1	5	..	1	..	1	..	1	..	2	..	101	371	14	20
	Chronica . . .	1	..	1	..	12	..	5	2	1	..	2	..	..	..	..	..	1	..	4	..	..	..	..	..	2	..	29	..	2	..
	Dyspepsia . . .	6	..	4	..	8	..	1	..	5	..	..	..	3	..	2	..	1	..	3	..	4	..	1	..	2	..	40	..	..	..
	Colica . . .	2	..	..	..	..	..	..	..	1	..	2	..	2	..	1	..	5	..	2	..	..	..	3	..	1	..	19	..	..	..
	Diarrhœa . . .	11	..	20	..	43	..	21	..	15	..	15	1	4	..	9	..	4	..	8	..	3	..	5	..	..	..	158	..	1	..
	Obstipatio . . .	..	..	..	..	1	..	1	..	5	..	3	..	1	..	2	..	..	..	..	..	1	..	1	..	3	..	18	..	..	..
Diseases of the Brain.	Cholera Morbus . . .	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..
	Apoplexia . . .	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	8	..	
	Paralysis . . .	..	..	2	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	2	..	..	..	1	..	2	..	2	18	..	..
	Amentia . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Mania . . .	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dropsies.	Epilepsia . . .	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	2	..	..	..	..	..	..	6	..	..	..	..
	Anasarca . . .	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	3	..	..	..
Rheumatic Affections.	Rheumat. Acutus . . .	17	..	11	..	26	..	12	..	10	..	5	1	2	..	11	..	4	1	9	..	12	..	13	..	4	..	136	289	2	2
	Chronicus . . .	1	..	9	..	32	..	25	..	31	..	12	..	2	..	3	..	11	..	8	..	1	..	3	..	4	..	142	..	..	..
	Lumbago . . .	..	..	..	..	..	..	..	..	..	..	..	..	3	..	1	..	1	..	1	..	2	..	..	..	..	..	8	..	..	..
Venereal Affections.	Odontalgia . . .	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	..	..	..	..
	Syphilis Primitiva . . .	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	3	..	..	..	..
	Consecutiva . . .	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
	Ulcus Penis non Syph . . .	..	..	..	..	..	..	..	..	2	..	8	..	1	..	2	..	1	..	..	..	1	..	4	..	5	..	24	..	..	..
	Bubo Simplex . . .	..	..	..	..	1	..	1	..	1	..	3	..	..	..	2	..	..	..	1	..	1	..	..	..	1	..	10	..	..	..
	Gonorrhœa . . .	8	..	5	..	7	..	6	..	16	..	15	..	4	..	7	..	7	..	6	..	16	..	13	..	6	..	116	268	..	..
	Hernia Humoralis . . .	7	..	6	..	9	..	18	..	15	..	14	..	2	..	2	..	5	..	11	..	8	..	5	..	3	..	105	..	..	..
Abscesses and Ulcers.	Stricture Urethrae . . .	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..
	Phymosis et Para- phymosis . . .	..	..	1	..	1	..	1	..	1	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	7	..	..	..	..
	Phlegmon et Ab- scessus . . .	9	..	31	..	33	..	15	..	16	..	17	..	7	..	2	..	14													

Showing the Ages of the Troops composing the Service Companies of Corps stationed at the CAPE of Good Hope, and the Deaths at each Age, from 1st January 1830 to 31st March 1837.

YEARS.	CORPS.	Under 18 Years.		18 to 25.		25 to 33.		33 to 40.		40 to 50.		Total of all Ages.	
		Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died
1830	72nd Regt. [No returns from the other Corps available in this year.]	11	..	347	1	186	2	21	1	3	1	568	5
1831	72nd Regt.	11	..	342	1	181	7	20	..	3	..	557	8
	75th „	7	..	330	4	148	2	54	2	8	..	547	8
	98th „ . . . .	..	..	172	5	324	4	25	1	4	..	525	10
	Total for 1831	18	..	844	10	653	13	99	3	15	..	1629	26
1832	72nd Regt.	4	..	289	3	206	8	24	1	5	1	528	13
	75th „	6	..	306	4	201	3	43	1	6	1	562	9
	98th „ . . . .	..	..	162	3	314	1	24	..	2	..	502	4
	Total for 1832	10	..	757	10	721	12	91	2	13	2	1592	26
From 1st Jan. 1833 to 31st March 1834.	72nd Regt.	2	..	197	1	287	11	21	..	6	..	513	12
	75th „	5	..	167	..	308	4	54	2	12	..	546	6
	98th „	3	..	12	..	485	10	11	..	1	..	512	10
	Total	10	..	376	1	1080	25	86	2	19	..	1571	28
From 1st April 1834 to 31st March 1835.	72nd Regt.	2	..	103	2*	380	14*	24	..	12	..	521	16
	75th „ . . . .	..	..	150	1	288	1	71	..	18	..	527	2
	98th „	4	..	25	..	479	8	11	2	..	..	519	10
	Total	6	..	278	3	1147	23	106	2	30	..	1567	28
From 1st April 1835 to 31st March 1836.	72nd Regt.	3	..	55	1	392	10	22	2†	14	..	486	13
	75th „	1	..	156	2	272	6	63	1	22	1	514	10
	98th „	4	1	25	..	450	9	8	1	2	..	489	11
	Total	8	1	236	3	1114	25	93	4	38	1	1489	34
From 1st April 1836 to 31st March 1837.	72nd Regt.	1	..	57	..	375	8	31	..	13	..	477	8
	75th „ . . . .	..	..	183	..	214	10	75	3	23	..	495	13
	98th „	5	..	20	1	437	8	4	2	2	1	468	12
	Total	6	..	260	1	1026	26	110	5	38	1	1440	33

General Results from 1st January 1830 to 31st March 1837.

PERIOD.	Under 18 Years.		18 to 25.		25 to 33.		33 to 40.		40 to 50.		Total of all Ages.	
	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died
1st January to 31st December 1830 .	11	..	347	1	186	2	21	1	3	1	568	5
„ „ „ 1831 .	18	..	844	10	653	13	99	3	15	..	1629	26
„ „ „ 1832 .	10	..	757	10	721	12	91	2	13	2	1592	26
„ 1833 to 31st March 1834 .	10	..	376	1	1080	25	86	2	19	..	1571	28
1st April 1834 „ 1835 .	6	..	278	3	1147	23	106	2	30	..	1567	28
„ 1835 „ 1836 .	8	1	236	3	1114	25	93	4	38	1	1489	34
„ 1836 „ 1837 .	6	..	260	1	1026	26	110	5	38	1	1440	33
Total for 7½ Years	69	1	3098	29	5927	126	606	19	156	5	9856	180
Deduct a twenty-ninth part of the deaths to ascertain the mortality of 7 years exactly . . . .	..	..	..	1	..	4	..	1	..	..	..	6
Total for 7 years	69	1	3098	28	5927	122	606	18	156	5	9856	174

Of the above there died at Chatham, or on their passage home, the following numbers of each class :—

PERIOD.	25 to 33 Years.	33 to 40.	40 to 50.	Total of all Ages.
1st January to 31st December 1832 .	..	..	1	1
„ 1833 to 31st March 1834 .	1	..	..	1
1st April 1834 „ 1835 .	4	2	..	6
„ 1835 „ 1836 .	1	1	..	2
„ 1836 „ 1837 .	1	..	..	1
Total	7	3	1	11

* 72nd Regiment, 1 of 2nd Class, and 10 of 3rd Class, omitted in 1834, having been killed in action.

† 72nd Regiment, 1 of 3rd Class omitted in 1835 for same reason.

Showing the Number of Admissions into Hospital and Deaths among the Officers serving at the CAPE of GOOD HOPE, from 1822 to 1836 inclusive.

Classes of Diseases.	Specific Diseases.	Years		1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	From 1822 to 1836.				
		Strength		132	132	125	128	122	107	107	114	115	109	102	107	111	73*	67*	Aggregate Strength 1,651				
				Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Admitted.		Died.	
				By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.
Fevers.	Feb. Intermittens	1	1	
	Remittens	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	2	..	4	..
	Cont. Com.	6	..	7	1	3	7	1	5	10	2	5	4	5	3	7	5	4	3	76	83		
	Synochus	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	2	1
Diseases of the Lungs.	Pneumonia	2	..	2	..	2	2	1	5	1	..	2	1	1	1	..	..	..	20	..	..
	Hæmoptysis	1	..	..	1	..	1	..	..	..	..	2	1	1	..	..	..	7	..	2	..
	Phthisis Pulmonalis	..	..	2	..	1	..	..	..	..	..	..	..	..	1	1	..	4	108	1	3
	Catarrhus Acutus	..	..	..	7	..	1	..	4	4	2	9	3	5	6	11	11	9	72	..	..
Diseases of the Liver.	Chronicus	..	..	..	..	..	..	..	3	..	..	..	..	..	2	..	..	5	..	..	..
	Hepatitis Acuta	1	..	3	..	3	1	..	1	..	..	1	..	1	1	..	3	..	11	26	1
	Chronica	..	..	..	..	..	3	..	..	..	..	1	..	..	3	1	3	..	12	..	..
	Icterus	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	3	..	..
Diseases of the Stomach and Bowels.	Gastritis	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..
	Enteritis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	2	..	..
	Dysentery Acuta	..	..	1	..	2	5	1	5	..	2	..	..	2	1	5	2	1	27	..	..
	Chronica	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..
	Dyspepsia	1	..	3	..	3	4	1	3	1	3	10	3	2	6	4	2	3	49	167	..		
	Colica	..	..	1	..	..	..	1	..	..	..	..	..	..	2	..	3	7	..	..	..
	Diarrhœa	6	..	5	..	3	2	2	4	..	2	5	3	1	4	6	5	1	47	..	..
	Obstipatio	..	..	..	..	2	2	2	4	4	1	3	1	4	1	3	4	1	30	..	..
Diseases of the Brain.	Cholera Morbus	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	3	3	..	..
	Phrenitis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..
	Apoplexia	1	1	..	3	2	1	1	..	..	..	..	..	..	..	..	..	6	14	4	5
	Paralysis	..	..	..	2	1	..	1	..	..	..	..	..	..	..	..	..	3	..	1	..
Dropsies.	Mania	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..
	Vertigo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..
Rheumatic Affections.	Anasarca	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	2	..	..
	Ascites	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..
	Rheum. Acutus	..	..	..	5	..	3	..	5	1	1	3	..	4	5	7	6	6	46	..	..
	Chronicus	..	..	..	..	1	1	..	..	..	..	..	6	1	1	2	..	1	13	67	..
	Lumbago	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	3	..	..
	Arthritis	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	1	..	..
Venereal Affections.	Podagra	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..
	Odontalgia	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..
	Syphilis Primitiva	1	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	1	5	..	..
	Consecutiva	..	..	..	..	..	..	..	..	..	..	1	1	1	3	1	1	..	8	..	..
	Ulcus Penis non Syph.	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	2	..	..
	Bubo Simplex	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	3	39	73	..
	Gonorrhœa	..	2	2	2	3	2	2	5	3	4	5	1	5	3	2	..	9	..	..	..
Abscesses and Ulcers.	Hernia Humoralis	1	..	..	1	..	1	..	1	..	1	1	1	1	1	..	1	6	1	..	..
	Stricture Urethræ	..	1	1	..	..	1	..	1	..	1	..	1	..	..	..	1	1	6	..	..
Wounds and Injuries.	Paraphymosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
	Phlegmon et Abscessus	..	..	..	4	3	6	1	2	1	7	2	6	3	3	10	4	39	70	..	..
	Ulcus	..	..	..	..	3	7	3	1	..	7	..	2	6	1	..	1	31	..	..	..
	Luxatio	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..
	Subluxatio	..	1	..	1	1	..	1	..	..	..	..	3	1	3	1	4	16	..	..	..
	Vulnus Incisum	..	..	..	..	1	..	1	..	..	..	1	2	2	..	5	..	11	116	..	1
	Sclopitorum	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	2	2	..	..
Diseases of the Eyes.	Contusio	..	1	3	3	13	4	5	8	6	5	2	12	3	7	1	73	..	..	..	..
	Fractura	..	..	..	1	2	1	1	1	..	1	..	..	1	1	..	3	11	..	1	..
All other Diseases.	Concussio Cerebri	..	..	..	..	..	1	..	1	..	..	1	..	..	..	..	..	2	2	..	..
	Morbi Oculorum	..	..	1	1	2	3	..	2	..	2	..	2	1	..	4	..	16	16	..	..
	Morbi Cutis	..	1	..	..	1	..	..	..	..	2	..	2	..	1	..	..	7	7	..	..
	Cynanche Tonsillaris	..	..	..	1	..	3	4	2	2	1	..	..	4	3	5	1	26	..	..	..
	Nephritis	..	..	..	..	1	..	..	..	1	..	..	..	1	..	1	..	4	..	..	..
	Cystitis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..
	Otitis	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
	Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
	Hæmorrhoids	1	..	..	..	1	..	1	2	3	..	..	..	1	2	..	..	10	47	..	1
	Vermes	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	..	..
Diseases not known or in England, on sick leave	Scrofula																						

* The strength in 1835 and 1836 being exclusive of the Officers on the frontiers, it is supposed the diseases treated in those years are only such as occurred within the Cape District.

Showing the Number of Admissions into Hospital and Deaths among the Troops serving at the CAPE of GOOD HOPE, in each Month, from January 1822 to December 1834 inclusive.

I. ADMISSIONS.															
MONTHS.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.
Years .	1822			1823			1824			1825			1826		
January .	76	5	91	107	14	101	70	13	79	85	13	107	98	24	100
February .	68	3	91	108	14	70	86	11	103	88	19	121	82	19	85
March .	83	4	82	67	23	81	47	14	74	108	21	115	84	25	80
April .	100	10	59	87	10	91	50	21	86	119	17	119	67	20	96
May .	137	10	68	63	13	69	61	11	81	114	12	121	105	27	96
June .	121	12	71	68	16	62	45	9	73	122	21	74	83	24	87
July .	69	9	62	49	18	54	59	18	88	95	14	76	53	19	95
August .	77	10	78	63	9	55	89	23	102	81	15	80	40	17	86
September .	61	6	78	44	9	75	61	24	107	71	20	108	41	23	90
October .	85	5	73	51	9	71	87	14	127	103	18	98	44	16	101
November .	80	7	63	74	16	95	110	31	104	97	14	98	44	19	107
December .	95	6	70	87	12	76	88	19	108	77	23	92	45	11	95
Total .	1052	87	886	868	163	900	853	208	1132	1160	207	1209	786	244	1118
Years .	1827			1828			1829			1830			1831		
January .	61	27	100	86	7	80	72	15	104	59	28	108	89	37	69
February .	46	24	93	73	12	71	70	36	113	60	24	104	80	30	65
March .	111	26	87	82	6	68	56	17	83	77	20	107	73	33	62
April .	49	22	68	44	6	57	55	13	104	53	6	104	75	25	58
May .	64	27	97	63	8	71	40	17	72	36	14	125	65	39	75
June .	58	17	84	48	9	84	44	15	77	47	5	113	60	40	56
July .	56	13	83	27	7	72	29	14	87	56	16	95	51	26	67
August .	38	9	74	21	4	55	33	15	95	33	10	101	65	36	67
September .	53	11	81	31	15	79	37	12	107	81	38	109	76	39	55
October .	66	19	79	49	21	101	37	11	118	69	31	117	80	18	52
November .	46	6	67	76	24	78	75	18	94	85	27	110	74	28	63
December .	59	16	65	66	18	96	69	17	93	77	29	98	79	32	52
Total .	707	217	978	666	137	912	617	200	1147	733	248	1291	867	383	741
Years .	1832			1833			1834			Total for 13 Years.					
January .	84	31	107	75	16	95	31	17	110	993	247	1251			
February .	63	13	71	52	8	83	33	12	94	909	225	1164			
March .	41	10	79	63	16	81	35	13	100	927	228	1099			
April .	55	9	80	58	17	86	27	14	91	839	190	1099			
May .	43	11	92	54	11	87	34	18	92	879	218	1146			
June .	45	14	74	66	11	69	29	15	81	836	208	1005			
July .	43	13	84	44	14	62	27	16	79	658	197	1004			
August .	41	9	88	63	12	63	24	14	83	668	183	1027			
September .	30	12	80	62	18	89	29	15	83	677	242	1141			
October .	34	11	99	54	18	73	27	13	78	786	204	1187			
November .	65	19	131	58	19	55	25	11	82	909	239	1147			
December .	53	15	81	42	18	69	19	12	75	856	228	1070			
Total .	597	167	1066	691	178	912	340	170	1048	9937	2609	13340			

II. DEATHS.															
MONTHS.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.
Years .	1822			1823			1824			1825			1826		
January .	5	1	..	2	..	1	2	..	1	5	1	..	1	1	..
February .	1	2	..	2	1	..	..	..	..	2	2	..	1	1	1
March .	2	1	..	2	2	..	1	..	..	1	..	..	1	1	1
April .	6	1	..	1	..	..	1	..	..	5	..	1	1	1	..
May .	1	1	..	1	..	..	..	2	..	2	2	..	1	2	..
June .	3	..	..	1	2	..	..	3	..	6	2	..	2	..	..
July .	..	4	..	2	1	1	..	2	..	3	2	1	1	..	..
August .	3	..	..	1	..	..	1	..	..	2	..	..	2	..	..
September .	1	1	1	1	..	..	..	1	2	2	..	..	2	..	..
October .	..	3	..	..	1	..	1	..	..	2	..	..	1	2	..
November .	1	2	..	..	..	..	4	..	..	6	..	..	..	2	..
December .	2	..	..	3	3	..	1	..	..	2	2	..	2	..	..
Total .	25	16	1	16	10	2	11	8	3	38	11	2	15	11	1
Years .	1827			1828			1829			1830			1831		
January .	1	2	..	2	2	..	1	2	..	1	..	..	3	1	..
February .	2	..	..	2	2	..	..	1	..	2	..	2	..	1	..
March .	2	..	1	2	1	..	..	..	..	..	..	..	..	..	1
April .	1	2	..	2	..	..	1	2	1	..	..	..	2	2	..
May .	3	1	..	..	..	..	2	..	..	..	..	..	..	2	..
June .	1	2	1	1	..	..	..	..	..	2	..	1	2	..	..
July .	1	..	..	2	..	..	..	2	..	..	2	..	..	1	..
August .	2	..	..	1	..	..	1	..	..	1	2	..	..	2	..
September .	3	1	..	..	..	1	..	..	..	..	1	..	..	1	..
October .	..	1	..	3	3	..	..	..	..	2	3	..	..	..	..
November .	..	..	..	1	..	..	2	..	..	1	..	..	1	1	..
December .	3	..	..	..	..	..	..	1	..	1	2	..	4	1	..
Total .	19	9	2	16	8	1	7	8	1	10	10	3	12	12	1
Years .	1832			1833			1834			Total for 13 Years.					
January .	3	5	..	..	..	..	..	1	1	26	16	3			
February .	1	1	..	1	..	..	..	1	..	14	12	3			
March .	..	..	..	4	1	..	1	..	..	16	6	2			
April .	2	..	..	..	1	..	..	1	..	22	10	2			
May .	2	1	..	1	1	..	..	1	1	13	13	1			
June .	..	1	1	1	1	..	1	..	..	20	11	3			
July .	..	1	..	..	1	..	1	1	..	10	17	2			
August .	1	..	..	1	2	..	2	1	1	18	7	1			
September .	1	..	..	3	1	..	..	1	1	13	8	5			
October .	1	..	..	..	..	..	..	2	..	10	15	..			
November .	..	2	..	..	..	2	..	1	..	16	8	2			
December .	..	..	..	1	2	1	1	1	..	20	12	1			
Total .	11	11	1	12	10	3	6	11	4	198	135	25			

STATISTICAL REPORT
ON THE
SICKNESS, MORTALITY, AND INVALIDING
AMONG THE TROOPS
SERVING IN
THE MAURITIUS.

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SECTION I.

On the Sickness and Mortality among the Troops serving in the Mauritius.

THIS island is of an irregular oval shape, 36 miles in length, and from 18 to 27 in breadth, with a superficial extent of nearly half a million of acres. It is situated in the Indian Ocean, about 500 miles to the eastward of Madagascar, from 70 to 80 north-east of the island of Bourbon, and lies in Lat. 20° 9' S., Long. 57° 28' E.

Mauritius.

From whatever quarter it is approached the aspect is singularly abrupt and picturesque. The land rises rapidly from the coast to the interior, where it forms three chains of mountains from 1800 to 2800 feet in height, intersecting the country in different directions. Except towards the summit, these are generally covered with wood, and in many parts cleft into deep ravines, through which numerous rivulets find their way to the low grounds, and terminate in about twenty small rivers by which the whole line of coast is well watered from the foot of the mountains to the sea.

Physical Aspect.

Though, from its mountainous and rugged character, a great part of the interior is not available for any useful purpose, yet extensive plains several leagues in circumference are to be found in the highlands, and in the valleys as well as along the coast, most of the ground is well adapted either for the ordinary purposes of agriculture, or for raising any description of tropical produce. Extensive forests still cover a considerable portion of the districts of Mahebourg, the Savanna, and Flacq, and in the centre of the island are several small lakes, but neither of these agencies seem to exert any material influence on the climate.

The soil in many parts is exceedingly rich, consisting either of a black vegetable mould, or a bed of stiff clay of considerable depth; occasionally the clay is found mixed with iron ore and the debris of volcanic rock. In the neighbourhood of Port Louis, and generally in the immediate vicinity of the sea, there is but a scanty covering of light friable soil over a rocky surface of coralline formation. The whole coast is surrounded by reefs of coral, with the exception of a few openings through which vessels can approach the shore, and at these points the different military posts for the defence of the island have been established.

There is a marked difference in the climate of this island in different situations, the Windward side enjoying a lower temperature by several degrees than the Leeward, owing to the cooling influence of the south-east breeze which prevails during most of the year. The vicinity of the mountains also exerts very considerable influence on the humidity; and great varieties of temperature are experienced, according to the different degrees of elevation attained, so that at Moka and Plains Wilheims, in the high regions of the interior, fires are often necessary, when at Port Louis, though but two or three leagues distant, the heat is excessive. The following Table shows the range of the thermometer and fall of rain at the capital:—

Climate.

Months.	Temperature.			Fall of Rain.
	Average of 10 years, 1825 to 1834, inclusive.			Average of 7 years, 1828 to 1834, inclusive.
	Maximum.	Medium.	Minimum.	Inches.
January .	88	83	78	6.14
February .	88	83½	78½	5.53
March .	87	83	78½	9.55
April .	85	80½	76	6.86
May .	83	78	73	3.49
June .	82	74½	71	.78
July .	79	74½	70	1.37
August .	78	74	70	1.04
September	80	75	71	.76
October .	84	80	72	.43
November	84	79	74	1.48
December	87	81	75	1.87
Annual Mean				39.30

Temperature.

It will be observed that, so far as regards temperature, rain, physical aspect, and diversity of climate, this island exhibits a very striking resemblance to Jamaica; its latitude, too, is nearly the same, though, being to the southward of the line, the seasons are reversed, summer extending from October to April, and winter during the rest of the year. The principal rainy season is from the end of December to the beginning of April, but showers are frequent at all times, particularly in the high grounds and vicinity of the mountains.

Mauritius.

Prevailing Winds.

The prevailing winds are from south-east to south, and from north-east to north. Easterly winds are rare, and usually accompanied by heavy rain; those from the west are also by no means common, and generally broken by long calms. Hurricanes are of frequent occurrence, and create great devastation, with much loss of life, but do not appear to exercise any decided influence on the health. They principally occur in January, February, and March, when, in this climate, the greatest degree of heat is combined with the greatest moisture. They have often been observed to commence about the change of the moon, but no positive connection has ever been established between their prevalence and any meteorological phenomena.

Salubrity.

So far as can be ascertained from the Statistical Returns of the island, the climate does not exert any prejudicial influence on the health of the white resident population, though, as we shall hereafter have occasion to show, it is by no means favourable to the negro race. The deaths among the former during a period of eleven years, and the ages at which they occurred, were as under:—

Years.	Died.	Ages at which died.	Died.		Ages at which died.	Died.	
			Males.	Females.		Males.	Females.
1825	556	Under 5 Years	1177	1049	Brought forward	2804	2639
1826	410	5 to 10	85	110	55 to 60	171	103
1827	494	10 „ 15	66	74	60 „ 65	143	136
1828	552	15 „ 20	114	144	65 „ 70	127	66
1829	579	20 „ 25	187	225	70 „ 75	102	71
1830	640	25 „ 30	207	210	75 „ 80	85	56
1831	613	30 „ 35	223	227	80 „ 85	67	51
1832	577	35 „ 40	209	187	85 „ 90	20	21
1833	602	40 „ 45	181	136	90 „ 95	11	17
1834	915	45 „ 50	183	131	95 „ 100	4	9
1835	766	50 „ 55	172	146	100 &c.	3	7
Total .	6704	Carried forward	2804	2639	Total .	3537	3176

The precise number of the white population, over whom these observations extend, cannot be ascertained with the same accuracy as the deaths, but the average of the years 1827 and 1832 amounted to about 13,000 females and 12,000 males, exclusive of the military and convicts, and the mortality calculated on that basis would be 1 in 41 annually of both sexes, or rather less than in Malta.

Though the data on which this estimate has been framed are not quite so precise as could be wished, yet we have every reason to believe in the accuracy of our conclusions regarding the general salubrity of the Mauritius, as it is shown in a work by M. Thomas on the Statistics of the adjacent island of Bourbon, that the mortality of the same class of the population there does not exceed 1 in 45, which is nearly as low as in the United Kingdom.

Troops employed.

The troops employed in this Command have consisted either of two complete, or the Service companies of three Regiments of the Line, with one company of Artillery, and half a company of Sappers and Miners. Owing to the disturbed state of the colony, an additional Corps was sent there in 1833, but withdrawn in 1835. The Service companies of two corps, with the head quarters of the Artillery and Sappers and Miners, are generally at Port Louis, those of the other corps are distributed between the different stations on the Windward side of the island, having their head quarters at Mahebourg. A small party of negro pioneers is also attached to the Quarter-Master-General's, or Barrack department; they are not armed, but merely employed on fatigue duties.

Duty and Employment.

Except during the disturbances above referred to, the duties of the white troops at the principal military stations have not been severe, consisting merely of the details usual in other garrisons. In some of the earlier years over which the report extends, working parties were furnished during the day, for the purpose of improving the roads and communications, but this duty is now restricted to the cool of the mornings and evenings, when the men are paid for their services at the rate of a penny per hour. The small detachments throughout the island furnish orderlies for the conveyance of the post, and occasionally perform other duties of internal police. The Sappers and Miners labour as artificers on the public works during the greater part of the day, but without experiencing any prejudicial effect from such employment.

Barrack and Hospital Accommodation.

In explaining the nature of the barrack and hospital accommodation throughout this Command, it becomes necessary to enter into a brief description of the several military stations at which the troops are quartered.

PORT LOUIS,

Port Louis.

The capital of the island, stands on an extensive plain about two miles in length and nearly the same in breadth, open to the sea, but encompassed on all other sides by lofty mountains, whose bold and rocky summits broken into a variety of peaks and chasms, present a most singular appearance.

In consequence of its position to Leeward, and this rocky barrier shutting out the south-east breeze which prevails in these latitudes during a great part of the year, Port Louis is

one of the hottest positions in the island. The ground in the vicinity is generally dry and rocky, but near the shore and at the head of several creeks adjacent to the harbour, as well as along the banks of a small muddy stream which flows past the town, many marshy spots are to be found, which, under a tropical sun, might be supposed likely to generate fevers of the worst type. The extensive suburbs too are generally in a very filthy state, and, during the hot and rainy season, swampy, both from situation and soil; yet, as will hereafter be shown, none of these agencies appear to produce that insalubrity which we have so frequently had occasion to record under similar circumstances in other tropical climates.

Mauritius.

The barracks stand in a low situation, at the western extremity of the Town, and consist of two large stone buildings in a square enclosure comprising about 21 acres. The principal barrack, which extends along the whole side of the square, is 975 feet long, 24 broad, 19 high, and contains in all 27 rooms. The second barrack, built against another side of the square, is 466 feet long, about 27 broad, of the same height as the other, and divided into 14 rooms. The upper stories of both are said to be excessively hot, owing to the lowness of the roof. A large tank has been formed in the centre of the square, to which the soldiers have access for the purpose of ablution.

At Fort George and Reduit, in the vicinity, are also two small barracks capable of containing 20 men each, though rarely occupied by that number. Extensive accommodation has also been recently prepared for the troops, in some military works erecting for the defence of the Capital, but not having been occupied during the period under review, it is unnecessary to refer to them.

The hospital stands nearly three quarters of a mile from the barracks on a peninsula of coral rock jutting into the sea, above which it is elevated only a few feet. It is a flat-roofed stone building two stories high, and consists of two wings, joined by a low range of offices, forming a small square. It contains several wards, those in the lower story are seldom occupied by patients, as there is generally in the upper one abundance of accommodation for all the sick of the garrison.

During most of the period under review, a detachment was furnished from Port Louis to the station of—

POWDER MILLS,

About 7 miles to the north, in a low situation from which the ground rises on all sides, and in the vicinity of a marshy tract of land, extending about two miles to Windward. Except in that quarter, the country around the post is well cultivated, and interspersed with plantations.

Powder Mills.]

The barracks are of one story, built of stone, and afforded abundance of accommodation for the small party formerly quartered there, whose principal duty consisted in guarding some Cingalese state prisoners. The buildings are now said to have fallen into disrepair.

Eight miles to the north of this post, and 15 from Port Louis, is another detachment at—

CANNONIER POINT,

A stone casemated tower of two stories, the upper containing two, and the lower three rooms, affording sufficient accommodation for the party of from 10 to 20 men generally quartered there.

Cannonier Point.

The tower stands on a low projecting spit of land, almost level with the sea; the soil is so sandy as not to admit of cultivation, and there is no marshy ground or rivers in the vicinity.

BLACK RIVER.

This post is about 19 miles to the south of Port Louis, on the same side of the island, and situated on a low sandy beach at the bottom of a bay of the same name. The country in the vicinity is an uncultivated plain, interspersed with rows of date and tamarind trees; but at a considerable distance to the westward, is a range of lofty mountains which shuts out the breeze, and adds materially to the temperature.

Black River.

The force consists generally of an officer and 22 men, stationed in a small barrack of three rooms, with a sergeant's quarter and guard-room at each extremity. There is also a detached building for the married soldiers, with a small hospital and other offices. All are of wood raised upon stone, and afford abundant accommodation.

In the vicinity of this post are two Martello towers protecting the extremities of the Bay of Black River; each is calculated to contain an officer and 15 men, though at present only occupied by a corporal's party of the Artillery.

These comprehend the stations on the Leeward side of the island. The force on the Windward side consists, as we have already stated, of the service companies of one corps distributed as follows:—

MAHEBOURG.

This station, usually the head quarters of the corps, is situated near the head of the bay of Grand Port. The ground to the distance of three or four miles is open and tolerably well cultivated, principally under sugar cane; the soil is dry and gravelly, but on the opposite side of the bay the land swells into a ridge of high mountains extending along the coast to the north and east, and covered with forest trees. No marshes or other supposed

Mahebourg.

Mauritius.

sources of malaria exist in the vicinity, and, being open to the influence of the south-east wind, this station is reckoned one of the healthiest in the island.

The barracks consist of two buildings erected upon a low point of land, not more than 10 or 12 feet above the level of the sea, and, having a small rivulet in rear, are almost entirely surrounded by water. One of the barracks is a stone building of two stories, spacious, well ventilated, and capable of containing from 200 to 300 men; the other is of wood, and will contain from 180 to 200, but being considered insecure is not at present occupied.

The hospital, which is within 60 yards of the barracks, consists of two wooden buildings, one two stories high, containing two wards with accommodation for 18 patients; the other of one story, and containing three wards with accommodation for six patients in each, all well ventilated and in good repair. The force has varied materially according to the strength of the detachments furnished to the other outposts, but has seldom been under 200 men.

GRAND RIVER POST,

Grand River Post. Is situated 14 miles to the north of Mahebourg, on the right bank of the Grand River. Behind it, a range of mountains, disposed in the form of an amphitheatre, rises to a considerable height. On the other side the country is well wooded, and in the direction of the sea there is nothing to obstruct the breeze, which blows almost constantly from the south-east. The ground is well cultivated, and no marshes or swampy situations are to be met with in the vicinity. The force has generally consisted of an officer and 20 men, who are accommodated in a wooden barrack of two stories, situated on a projecting tongue of land about 200 yards from the sea. The sick are generally sent to the neighbouring station of—

FLACQ.

Flacq. This post lies on the same side of the island, about 13 miles to the north of Grand River, and 21 from Port Louis by the usual road. It is open to the sea, and enjoys a refreshing breeze from the south-east during a great part of the year. The country in the vicinity is an extensive plain rising gradually towards the interior, the nearest range of mountains being seven or eight miles distant.

The force employed has varied considerably, according to circumstances. Of late it has consisted of about 100 men under the medical superintendence of an Assistant Surgeon, who has also charge of the sick at Grand River and Poudre d'Or.

The barracks are about 100 yards distant from, and 10 feet above the level of, the sea, which here forms a creek and harbour for small craft. The site is dry and rocky, except to the north-west, and in rear of the building, where a piece of marshy ground about a mile in circumference is occasionally overflowed by the tide, but appears in no respect to influence the health of those resident even in its immediate vicinity. A small river runs within 100 yards of the barracks, and there is also a good supply of water from a spring in the neighbourhood.

The barracks consist of three buildings, one of wood and two of stone, each of two stories. The hospital is of wood, and has a range of offices attached to it of the same material. The accommodation in both is said to be amply sufficient for the force quartered there.

POUDRE D'OR,

Poudre d'Or. Is another small outpost, 14 miles to the north of Flacq. The country in the vicinity is more level than at the other stations, and being farther from the mountains the climate is drier. At a short distance from the barrack is a considerable extent of marshy ground; but it does not seem to exert any prejudicial influence on the health of the troops. The force generally consists of an officer and 14 men, who are accommodated in a wooden barrack erected on a small promontory washed by the tide, and well exposed to the south-east breeze.

The three last stations are to the north of Mahebourg; there are also two others to the south of it, viz., Port Souillac and Jacoté.

PORT SOUILLAC,

Port Souillac. Lies about 28 miles from Mahebourg, on the shores of a small creek or bay, at the mouth of the Savanna River. The detachment is stationed on a small headland forming the eastern side of the harbour, and about 30 feet above the level of the sea. The substratum of this headland, as well as the country adjacent, is basalt. There are no swamps or marshes in the vicinity, and the rain is speedily carried off by the natural drainage. As this post enjoys the influence of the south-east trade wind during a greater part of the year, it is cooler than most others in the Island, and bears a high character for salubrity. In former years it had only a corporal's guard, but since 1832 the force has been increased to a subaltern and 18 men, who are accommodated in a wooden barrack of one apartment, to which a guard-room is attached; in a separate building is a small hospital capable of containing beds for eight patients if necessary.

JACOTÉ.

Jacoté. This station is situated about six miles to the south of Port Souillac, near the mouth of a small river, and was formerly occupied by a subaltern and 20 men; but, since the strength of the party at Souillac was increased, the force has either been materially reduced or withdrawn altogether. The barracks were of wood, built in a low situation close to the beach, and are now understood to have been removed to Souillac.

These comprise all the military stations in the island, with the exception of a few posts of communication, at which are small parties under the charge of non-commissioned officers. One of the regiments also furnished a detachment to the Seychelles, a group of islands 900 miles to the north of the Mauritius, the climate and local peculiarities of which will be more particularly adverted to in a subsequent portion of this Report, where the sickness and mortality among that detachment is detailed.

The rations of the white troops in this island consist of 1 lb. of bread, or $\frac{3}{4}$ lb. of biscuit, and 1 lb. of meat, fresh or salt. The proportion of salt meat is not the same at all the stations. At Port Louis and Mahebourg it was seldom issued oftener than from 10 to 14 days per month, and the proportion is now still further reduced, but at some of the smaller posts it formed the principal diet of the soldier during the period under review. As little attention is paid to the rearing of stock, and the pasturage is said to be defective, cattle are imported from Madagascar. Vegetables are very scanty, and too expensive to be used in sufficient quantities by the troops.

The regulated meals of the soldier are breakfast and dinner, the former at 8, and the latter at 1 o'clock. Breakfast consists of a pint of tea, with from half-a-pound to a pound of ration bread, and occasionally a small quantity of butter; dinner, either of the fresh meat made into soup with vegetables, or of the salt meat boiled and eaten with yams or manioc, and in some corps half-a-pound of bread is purchased in addition to the ration to supply the want of vegetables. There is no regular supper, so that the soldier passes 19 hours without food, unless he puts aside a small portion of his dinner for an evening meal.

Having given these details in regard to the different circumstances whereby the health of the troops is likely to have been affected, the sickness and mortality among them during the period under review will be shown in the following Table, which refers, however, to the White Troops only, as, from the circumstance of the negroes being affected by the climate in a very different degree, it will be requisite to investigate the details of that class separately.

Year.	Strength.	Admissions.	Deaths.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1818	1,776	1,714	48	965	27
1819	1,650	1,584	65	960	39
1820	1,395	1,434	57	1,028	41
1821	1,298	1,302	36	1,003	28
1822	1,346	1,509	27	1,121	20
1823	1,248	1,138	34	912	27
1824	1,190	1,250	22	1,050	19
1825	1,131	1,391	21	1,230	19
1826	1,338	2,214	21	1,655	16
1827	1,692	2,040	25	1,206	15
1828	1,639	2,281	59	1,392	36
1829	1,650	2,111	47	1,280	29
1830	1,606	2,162	29	1,346	18
1831	1,777	2,633	56	1,493	32
1832	1,861	2,859	52	1,536	28
1833	2,228	3,317	56	1,489	25
1834	2,201	3,051	68	1,386	31
1835	1,934	2,451	63	1,267	33
1836	1,555	1,647	49	1,059	31
Total .	30,515	38,108	835	..	..
Average	1606	2006	44	1249	27.4

Table I.
Showing the Admissions into Hospital and Deaths among the White Troops in the Mauritius.

From this table we learn that among every thousand soldiers serving in the Mauritius 1249 cases of sickness have occurred in the course of the year, consequently, on an average, each man has been in hospital about once in 10 months, which is nearly the same as in the Mediterranean. The deaths which took place under medical treatment amounted to $27\frac{4}{10}$ per thousand annually; but the total mortality, as ascertained by a comparison of the War Office and Medical Returns, was as under:—

	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	Total.
Deaths, per War-Office Returns . .	56	76	61	41	31	34	23	23	27	27	66	58	35	56	58	62	72	70	54	936
Deaths, per Medical Returns. . .	48	65	57	36	27	34	22	21	21	25	59	47	29	56	52	56	68	63	49	835
Omitted in Medical Returns. . .	8	11	4	5	4	..	1	2	6	2	7	11	6	..	6	6	4	7	5	95

From this comparison is excluded, in both instances, those who died at the Seychelles, to whom reference will hereafter be made.

The deaths omitted in the Medical Returns increase the mortality to $30\frac{1}{2}$ per thousand. They arose principally from violent or accidental causes, of which we have been able to trace the following:—

Mauritius.

Drowned	28	Blown up	2
Suicide	11	Suffocated	1
Died Suddenly from Apoplexy	15	Killed by a fall	1
" " Intoxication	6	Found Dead	3
" " Fainting	1	Executed	3
" " Ruptured Blood Vessel	1	Suddenly, cause unknown	9
" " Aneurism	1	Unaccounted for	9
Burnt	1	Total	95

The proportion of deaths from these causes is rather higher than in the other Commands, and most of them are said to have occurred when the parties were in a state of intoxication. Besides the cases of suicide above referred to, which took place too suddenly to admit of treatment, several of the admissions recorded in the General Abstract of Diseases, arose from attempts at self-destruction, some of which ultimately proved fatal.

It will be observed that, while the mortality of the civil population little exceeds the usual ratio in the United Kingdom, that of the troops is at least twice as high as on home service. The officers also enjoy as great an exemption from sickness and mortality as any class of the resident population, so that here we may fairly conclude the sufferings of the troops to be in a great measure attributable either to their own vices and follies, or to some peculiarity in their condition, from which the others are exempt.

According to the preceding Table there has been a marked increase in the proportion both of admissions and deaths since 1828, and a reference to Abstract No. I. of Appendix shows that this increase has taken place in almost every class of diseases. On the average of the whole period under review, however, the troops have been more healthy than for the six years antecedent to 1818, when, as ascertained from some old Returns, the mortality was about 40 per thousand annually.

The military stations in this island vary materially in salubrity, during the six years just referred to; for instance, the ratio of admissions and deaths annually, per thousand of mean strength, was relatively as follows:—

	Admissions.	Deaths.
Port Louis	1,130	49
Mahebourg	1,031	30
Flacq	902	33
Average.	1,069	40

We regret that the Returns do not admit of the relative salubrity of these stations being determined with equal facility since 1818, but it may be assumed from the above data that though there is little difference in the extent of sickness, the mortality is nearly one-half higher on the Leeward than the Windward side of the island.

The diseases by which the sickness and mortality among the troops has been occasioned since 1818, are enumerated in Abstract No. I. of Appendix, of which the results are exhibited in a comprehensive form in the following Table:—

Table II.
Showing the principal Diseases among White Troops in the Mauritius.

	ADMISSIONS.		DEATHS.	
	Total among whole Force in 19 Years.	Annual Ratio per 1000 of Mean Strength.	Total among whole Force in 19 Years.	Annual Ratio per 1000 of Mean Strength.
By Fevers	4,709	154·	53	1·7
Eruptive Fevers	6	·2	..	..
Diseases of the Lungs	2,550	84·	172	5·6
" Liver	2,508	82·	122	4·
" Stomach and Bowels	8,394	275·	323	10·6
Epidemic Cholera	268	9·	32	1·1
Diseases of the Brain	1,236	41·	83	2·7
Dropsies	69	2·3	9	·3
Rheumatic Affections	1,396	46·	1	
Venereal "	3,519	115·	1	
Abscesses and Ulcers	5,842	191·	9	
Wounds and Injuries	4,103	134·	14	
Punished	943	31·	..	1·4
Diseases of the Eyes	958	32·	1	
" Skin	433	14·	..	
All other Diseases	1,174	38·5	15	
Total	38,108	1,249·	835	27·4

On comparing the diseases among the White Troops in this island, with those in the Cape Town district, there is this marked difference, that in the former upwards of one-half are of so serious a character as in all probability to induce considerable injury of constitution; whereas in the latter scarcely one-third are of that description, the remainder being for the most part so trivial as not to detain the patient longer than a few days

in hospital. This will be more fully illustrated in the following remarks on the principal classes of diseases comprised in the preceding table:—

FEVERS.

Under this head are comprised,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Intermittent.	13	1	1 in 13
Remittent	6	1	1 ,, 6
Common Continued	4,673	51	1 ,, 91½
Typhus and Synochus	17	0	0 ,, 17
Total . .	4,709	53	1 in 89
Annualratio per 1000 of Mean Strength	154	1·7	..

Though this island is situated within the tropics, there is a still greater exemption from fevers of the intermittent and remittent type than at the Cape, only 13 cases of the former and 6 of the latter having been recorded in the course of 19 years, and most of these could either be traced to causes independent of the climate, or were merely modifications of the common continued type.

The mild character of this class of diseases in the Mauritius, is sufficiently established by the circumstance of one case only in 89 having proved fatal, being a smaller proportion than in the United Kingdom, or any of the Colonies of which the returns have yet been investigated. This may probably have arisen from many of the cases being the ephemeral result of intoxication, for which the patient was seldom more than a day or two in Hospital.

Much of the prevalence and mortality of fever in the earlier years has been attributed to soldiers working on the roads under the mid-day sun of the tropics, and travelling as orderlies with the post, &c. Both seem very plausible reasons; but if such alleged causes are to be estimated by their effects, they can have had little influence indeed, since the proportion of deaths from fever has seldom exceeded what takes place in the healthiest climates, among military and civilians, even when subject to no such labour or exposure. It is not during the last 19 years alone that fever has been exceedingly rare, but ever since the island came into possession of the British the same feature has been remarked; by a series of returns extending from 1812 to 1818, of which an abstract is given in the Appendix No. III., the mortality by fever among the troops averaged only 1½ per thousand annually, being to within a fraction the same as during the 19 years subsequent to that period.

We have already drawn attention to the circumstance of this island being so similar in most respects to Jamaica, lying nearly under the same latitude, but to the south of the Line, with a temperature alike to a degree, the interior of the same bold and mountainous character, and fringed by the same succession of low lands towards the coast, with little difference in soil or moisture, and like Jamaica, intersected by numerous rivers, studded with forests, and in many parts covered with the dense vegetation of the tropics. Marshy ground is not very common in either, but that supposed agency is quite as often to be met with in the Mauritius as in Jamaica, and particularly in the neighbourhood of the capital there are many low swampy spots, sluggish streams, and receptacles of filth, which, under a tropical temperature, would appear to furnish all the elements necessary for the production of Remittent Fever. Yet in the Mauritius only one soldier died by that disease in the course of 19 years, out of an average force of 1606, while in Jamaica 5114 perished by it during the same period out of a force not averaging above 2578; thus affording a striking instance how little is known of the real causes of that fatal epidemic, and how impossible it is, even for the most diligent observer, to arrive at accurate conclusions on the subject, from information acquired merely in one portion of the globe.

Eruptive fevers are so exceedingly rare, that only 6 cases occurred among the troops in 20 years, and there has not been a single instance of small pox since 1818. As at the Cape children have also been in a great measure exempt from them.

DISEASES OF THE LUNGS.

Under this head are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of the Lungs. . . .	690	35	1 in 19½
Pleurisy	34	4	1 ,, 8½
Spitting of Blood.	72	4	1 ,, 18
Consumption	233	97	1 ,, 2½
Acute Catarrh	1,221	10	1 ,, 122
Chronic ,,	253	20	1 ,, 12½
Asthma.	20	..	0 ,, 20
Difficulty of Breathing	27	2	1 ,, 13½
Total . .	2,550	172	1 in 15
Annualratio per 1000 of Mean Strength	84	5·6	..

Mauritius.

The ratio of admissions by this class of diseases is much the same as at the Cape, but the mortality is nearly twice as high, notwithstanding the mildness of the climate and the limited range of the thermometer in this island compared with the sudden changes of temperature and violent gusts of winds so much complained of in that Command.

The great source of this mortality arises from consumption, of which the proportion attacked annually has averaged $7\frac{1}{10}$ per thousand, being higher than in the United Kingdom, Mediterranean, or even America; although insular situations, particularly of limited extent, surrounded by a great expanse of ocean, and enjoying a mild and agreeable temperature, have generally been deemed favourable to persons predisposed to that disease.

The proportion of deaths to admissions from consumption is rather lower than in the other colonies above referred to, but as it cannot be ascertained how many of the cases were re-admissions, or in how many instances the patients may have been invalided, and died on their passage home, we are not warranted in drawing the conclusion, that, though more prevalent, consumption is here less fatal; could all the cases have been carefully followed out, there is little doubt that, as at other stations, they would, with very few exceptions, be found to have terminated in death. This disease has been equally prevalent among our troops in the colony, ever since its first occupation by the British; from 1812 to 1818, for instance, the number attacked was 137 out of an aggregate strength of 19,273, being $7\frac{1}{10}$ per thousand, of whom above one-half died; and the proportion of deaths by all diseases of the lungs amounted to $6\frac{1}{10}$ per thousand of the force annually, which is somewhat higher than during the period at present under investigation.

We have frequently had occasion to remark in the course of these inquiries, that it is not always in climates where other diseases of the lungs most abound, that consumption is most prevalent. Thus in the West Indies, catarrhs and other inflammatory affections are by no means so common as in the Mediterranean or North America, yet consumption is much more so; that disease is also found to be nearly twice as prevalent at the Mauritius as the Cape, though no such feature is manifested in others of the same class, but rather the reverse. It will also be observed that from 1818 to 1826, when all other diseases of the lungs were exceedingly rare, consumption was just as prevalent as at any subsequent period, thus indicating that its origin is not materially dependent on inflammatory action of that organ.

DISEASES OF THE LIVER.

Under this head are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Acute Inflammation of the Liver .	1,988	96	1 in $20\frac{2}{3}$
Chronic " " " .	469	23	1 , $20\frac{1}{3}$
Jaundice. 	51	3	1 , 17
Total	2,508	122	1 in $20\frac{1}{2}$
Annual ratio per 1000 of Mean Strength	82	4·	..

This climate exhibits much the same influence in inducing hepatic affections as that of Western Africa or St. Helena, and so insidious are the attacks, that on some occasions the result of dissection exhibits total disorganization, when the feelings of the patient have led to no suspicion of the liver being affected. As in the East Indies, too, this disease is frequently combined with dysentery, though the hepatic symptoms are sometimes so obscure as to escape notice.

This class of diseases cannot be deemed altogether the result of exposure to a high temperature, since in Jamaica, where that agency is also in operation to at least an equal extent, the liver seems but little affected, and in the Mauritius during years remarkable for a very high temperature, as in 1824 for instance, they have not been more frequent than usual.

Though not more prevalent, these diseases must have been of a much more fatal character between 1812 and 1818 than during the period at present under review, as upwards of one case in ten proved fatal.

DISEASES OF THE STOMACH AND BOWELS.

Under this head are comprised,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Abdominal Inflammation	7	3	1 in $2\frac{1}{3}$
Inflammation of the Stomach . .	56	6	1 , $9\frac{1}{3}$
Inflammation of the Bowels . . .	118	10	1 , 12
Vomiting of Blood	14	..	0 , 14
Acute Dysentery	5,158	267	1 , $19\frac{1}{2}$
Chronic " " "	262	18	1 , $14\frac{1}{2}$
Indigestion	479	1	1 , 479
Colic	1,108	3	1 , $369\frac{1}{3}$
Diarrhœa	848	11	1 , $73\frac{1}{2}$
Constipation	201	..	0 , 201
Cholera Morbus	183	4	1 , $45\frac{3}{4}$
Total	8,394	323	1 in 26
Annual ratio per 1000 of Mean Strength	275	10·6	..

This is by far the most formidable class of diseases among the troops in the Colony, more than one-fourth being attacked, and upwards of 10 per thousand cut off by it annually. The great majority of the cases are reported under the head of dysentery, arising no doubt in many instances from the hepatic derangement above referred to; but, as in the West Indies, numerous cases occur also in which no such connection can be traced. It rarely happens that the first attack of dysentery proves fatal; post-mortem examination has in almost every instance shown the tissue of the bowels to have been injured by former attacks, which rendered the sufferers particularly liable to its recurrence; the use of simple nourishing diet, with careful abstinence from all stimulants long after every dangerous symptom has disappeared, is said to be the only possible means of removing this tendency which proves so formidable a feature in the disease.

Owing to this circumstance the mortality from dysentery falls principally on soldiers advanced in life, who, having been longest resident in the climate, are likely to have suffered most from repeated attacks. The proportion occurring at each of the following periods of life, during the last 7 years included in this Report, was as under:—

Age .	18 to 24.	25 to 33.	33 to 40.	40 to 50.	Total of all Ages.
Aggregate Strength of Seven Years }	3892	5361	1215	300	10,768
Died by Dysentery	26	63	24	8	121
Ratio per 1000 of Strength Died }	6·7	11·8	19·7	26·6	11·2

Thus the youngest class of soldiers, composed principally of recruits but a short time in the Colony, suffer only to one-fourth the extent of those above the age of 40, most of whom have in all probability been resident there for several years.

It is singular that the Officers are not affected by these diseases to a greater extent than at the Cape, or other healthy colonies; the white civil inhabitants also suffer but little from them, the mortality from all causes at a corresponding period of life not being greater than what occurs among the troops from diseases of the bowels alone.

These diseases have been a great source of mortality ever since the island first came into our possession, but particularly during the war, when the troops were restricted almost entirely to salt rations. It will be seen, by reference to Abstract No. III. of Appendix, that from 1812 to 1817, the deaths by this class amounted to 17 per thousand of the force annually, and so severe were the cases of dysentery, that 1 in 10 proved fatal.

On reference to Abstract No. I. of Appendix, a very marked increase will be observed, since 1826, in the frequency if not in the mortality by diseases of the bowels, the ratio of admissions subsequent to that period being at least twice as high as in most of the years which preceded it; this at first was attributed to two regiments—the 29th and 99th—having newly arrived in the island, but that supposition has since been negatived by their having been nearly as prevalent in every subsequent year, though no such arrivals took place.

As these diseases, but particularly dysentery, prevail most during the rainy months of February, March, and April, some have supposed them to be materially influenced by the agency of moisture; this hypothesis, however, seems doubtful, because in Malta they are most common from June to September, when no rain falls, and in the Mauritius an increase of moisture does not appear to induce a corresponding increase in their frequency. In 1824 the quantity of rain was greater than had ever been the case in the memory of the oldest inhabitants, yet the admissions and deaths from these diseases were then under the average, and conversely, though there has been so great an increase in the admissions since 1826, the character of the climate as regards moisture has not differed in any material degree from preceding years.

CHOLERA MORBUS.

Admissions . 268 Deaths . . 32 Proportion of Deaths to Admissions . 1 in 8½

In 1819, when this disease prevailed to a great extent in the East Indies, it also made its appearance at Port Louis. At first it was supposed to have been imported by the *Topaze* frigate, from which several sailors were sent into the general hospital; but the certificate both of the Commander and Surgeon of that vessel subsequently proved, that though three cases of dysentery had terminated fatally on the voyage, no contagious disease had existed on board, nor, so far as could be ascertained, at any of the ports the vessel had sailed from, so that the appearance of this epidemic in the Mauritius remains involved in the same mystery as its origin in other Colonies.

The first case officially noticed was on the 20th of November, and on the following day two others were reported; these were confined to some East India convicts, but before another day had elapsed several occurred among the white population in different parts of

Mauritius.

the capital, most of which proved fatal in a few hours; the epidemic soon became general throughout the island, and continued its ravages among all classes till the middle of February, after which it was principally confined to the black population.

The first case noticed among the troops was on the 30th of November, and the last on the 3rd of February. In the course of that period about 2 per cent. were cut off by it; the proportion of deaths to the number attacked was, during the first month of its prevalence, about 1 in 6, and during the second about 1 in 12; the last cases which occurred in February were comparatively mild. The disease appears to have been little modified by locality, as the troops on the Windward and Leeward side of the island suffered in nearly an equal degree. At Port Louis 13 died out of a strength of 601, and at Mahebourg and Flacq the same number out of a strength of 663; it was much more fatal, however, at Powder Mills, a spot always deemed insalubrious, as 6 died out of 150, and the cases were of so virulent a character that only 8 recovered out of 14 attacked.

The disease exhibited nothing of a contagious character, even those who attended the sick were not more subject to it than others who had no intercourse with them. It did not affect all ranks equally, for among the civil population, the better classes of society suffered comparatively little, and among the officers no death took place, and only one was attacked. The total deaths recorded in the Civil and Military Hospitals, amounted to 1327, of whom 168 were whites, 162 coloured, and 997 blacks, principally negroes, who seemed peculiarly subject to the disease, nearly 3 per cent. of the whole number throughout the island having died from it. The greatest mortality within 24 hours was 32, and till the end of February the deaths averaged about 8 daily. The disease was tractable when noticed in the earlier stages, but if neglected for a few hours, collapse took place, and there was little prospect of recovery. On the whole, however, the proportion of deaths to admissions was considerably lower than on those recent occasions when it prevailed in the United Kingdom, Mediterranean, and America, as will be seen by the following comparison:—

In the United Kingdom.	1 in $3\frac{1}{4}$	In Canada	1 in 3
Gibraltar	1 „ $3\frac{1}{2}$	Honduras	1 „ 3
Nova Scotia	1 „ $3\frac{1}{2}$	the Mauritius	1 „ $8\frac{1}{2}$

So that either the epidemic had been less severe in its character, or the remedies employed more successful.

The weather for many months before this disease appeared was extremely variable and unseasonable, the winds irregular, but more constantly from the eastward than had ever been observed before, there was less rain, and the mid-day heat is described as having been more oppressive, though the nights were colder than usual. It is worthy of remark, that the season at which the cholera appeared and continued its ravages, corresponds to the latter end of summer and autumn, during which that and other epidemics have generally been most prevalent in the northern hemisphere.

This is not the only occasion on which cholera or some disease analogous in character, prevailed in the Mauritius, for in 1775, after a long succession of dry weather, an epidemic exhibiting precisely the same symptoms broke out, and caused a very great mortality, particularly among the negroes and coloured population. Of 4300 slaves belonging to Government, more than 2000 are said to have been cut off by it, and those belonging to the planters suffered in nearly the same proportion. After it had raged for nearly two months, the island was visited by a severe hurricane, which is supposed to have put a stop to it, as very few cases occurred afterwards.

DISEASES OF THE BRAIN.

Under this class are comprised in the preceding Table,—

	Admitted.	Died.	Proportion of Deaths to Admissions.
Inflammation of the Brain	41	5	1 in 8
Headache	393	1	1 „ 393
Stroke of the sun	25	1	1 „ 25
Apoplexy	30	15	1 „ 2
Palsy	69	6	1 „ $11\frac{1}{2}$
Fatuity	19	1	1 „ 19
Madness	33	2	1 „ $16\frac{1}{2}$
Epilepsy	112	2	1 „ 56
Brain Fever of Drunkards	514	50	1 „ $10\frac{1}{2}$
Total	1,236	83	1 in 15
Annual ratio per 1000 of Mean } Strength }	41	2.7	. . .

The ratio both of admissions and deaths from this class of diseases is unusually high, the former being four times, the latter twice as much so as at the Cape, indeed, the admissions occur in at least double the proportion of any other Colony. On investigation, however, we find that 393 cases reported as headache are stated to have been in most instances

the result of intemperance, and 514 reported as *delirium tremens* were obviously the consequence of that vice, deducting these, the climate of the Mauritius has exerted no peculiarly unfavourable influence on this class of diseases, but rather the reverse. Indeed, as will be seen on reference to Abstract No. III. of Appendix, embracing the period between 1812 and 1818, when intemperance does not appear to have been so prevalent, the admissions from this class of diseases averaged only 16 and the deaths $1\frac{3}{10}$ per thousand of the strength annually, which is as low as in North America.

Though by no means disposed to concur in the assertion, that the greater portion of the sickness and mortality among our troops, particularly in tropical Colonies, is the result of intemperance, yet in the Mauritius there is unquestionable evidence of this class of diseases, at least, being materially aggravated by that cause, particularly of late years, as will be seen by the number of cases reported under the head of *Delirium Tremens* since 1823, when that disease first appears in the returns:—

Years.	Mean Strength.	Admissions from Delirium Tremens.	Deaths from Delirium Tremens.
1823	1,248	4	..
1824	1,190	..	..
1825	1,131	6	1
1826	1,338	7	..
1827	1,692	18	2
1828	1,639	28	2
1829	1,650	36	3
1830	1,606	37	4
1831	1,777	55	3
1832	1,861	50	9
1833	2,228	60	5
1834	2,201	69	10
1835	1,934	88	9
1836	1,555	56	2

Table III.
Showing the Number of Admissions and Deaths from Delirium Tremens among the White Troops in the Mauritius.

Thus with the exception of the last year, this disease appears to have been progressively on the increase, and so fatal, even among the non-commissioned officers, whose habits ought to have been such as to exempt them from its influence, that in 1835, four serjeants and one acting serjeant-major are recorded among its victims. Nor are its ultimate consequences confined to the fatal cases above recorded, for while labouring under it several have committed suicide, and numerous attempts have been made to do so, which though unsuccessful, exposed the patient in several instances to long and protracted suffering, and ultimately led to his being permanently unfitted for the service.

It has been deemed requisite thus specially to call attention to the numerous cases of *delirium tremens* in this Command, both because the subject is so frequently adverted to by the medical officers, and because, if the prevalence of intemperance in different Colonies be estimated from the relative prevalence of this disease, that vice would appear, by the following comparison to be here at its maximum:—

	Aggregate Strength.	Admitted for Delirium Tremens.	Died by Delirium Tremens.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
United Kingdom (Dragoon Guards and Dragoons only)	44,611	27	4	·6	·1
Gibraltar	60,269	44	5	·7	·08
Malta	40,826	38	5	·9	·12
Ionian Islands.	70,293	192	30	2·7	·5
Bermuda	11,721	102	9	8·6	·8
Nova Scotia and New Brunswick	46,442	217	18	4·7	·4
Canada	64,280	296	18	4·6	·3
Windward and Leeward Command	86,661	1,426	175	16·5	2·
Jamaica	51,567	192	42	3·7	·8
Cape of Good Hope	22,714	13	3	·6	·13
Mauritius	30,515	514	50	16·8	1·6

Table IV.
Showing the relative prevalence of Delirium Tremens in the Mauritius and other Colonies.

It says much for the salubrity of the Mauritius, that where intemperance appears so general, and its effects are manifested to so frightful an extent, the mortality among the troops should not have exceeded 3 per cent., and had those deaths been deducted which might unquestionably be traced to this vice, it would have been even as low as $2\frac{1}{2}$ per cent.

With these facts before us, too, it is impossible to admit that the mortality which sweeps off so large a proportion of our troops in other tropical Colonies, is mainly attributable to drunkenness, when we find that, in this island, where that vice appears at its maximum, the mortality of the troops is as low as has ever been observed in similar latitudes.

The numerous instances of corporal punishment between 1827 and 1833, as compared with previous years, combined with the rapid increase of *delirium tremens* during the same period, supports our former conclusions as to the extent to which intemperance, and its usual concomitant, indiscipline, appear at that time to have been carried in this Colony, though fortunately the last year or two exhibits a manifest improvement. It is to be regretted that the extremely low price of spirits renders it almost impracticable to repress this vice among the troops by any coercive measures, however severe.

Mauritius.

SEYCHELLES.

In order to complete the details relative to the health of the white troops in this Com-
mand, it becomes necessary to notice a small detachment which has for some years past been furnished by one of the regiments at Port Louis, to the Seychelles, a group of islands lying about 930 miles north of the Mauritius, and between 4° and 5° of south latitude. They are fifteen in number and of various extent, some so small as not to contain above 150 acres; but the principal one, named Mahé, in which the detachment is stationed, is 16 miles long and from three to four broad, with a very steep and rugged granite mountain intersecting it longitudinally; indeed, most of the islands, though resting on a bed of coral, are covered with immense masses of granite. The soil of Mahé is principally a reddish clay mixed with sand, and is watered by an abundance of small rivulets.

The weather in these islands is described as being clear, dry, and extremely equable; storms or sudden atmospheric vicissitudes are very seldom experienced, and though so near the Line, the temperature being generally modified by a slight breeze, is comparatively low, and the nights are cool, with heavy dews and frequent rains. The wind is from the north-west nearly one-half of the year, and from the south-east during the other half, variations being seldom experienced except when the change is taking place from one monsoon to another. There is little difference also in the seasons except during November, December, and January, when much rain falls with occasional slight squalls. The following table, framed from observations taken at Mahé, will serve to illustrate the atmospheric phenomena of these regions:—

Climate and
Temperature.

	Thermometer.			Winds.	Weather.
	Max.	Med.	Min.		
January	88	80½	73	N.W. variable	Rainy.
February	86	80	74	N.W., and S.E.	Generally dry and clear.
March	86	81	74	N. W. and S.E.	Several days heavy rain at commencement of the month.
April	88	81	74	S.E., variable	Generally dry and clear.
May	86	80	74	S.E., monsoon.	Occasional showers.
June	87	80½	74	S.E. . . .	Rain occasionally.
July	86	80	74	S.E., squally	Generally dry.
August	86	80	74	S.E., monsoon	Almost daily heavy showers of rain, occasionally accompanied with thunder and lightning.
September	88	80½	73	S.E. . . .	Frequent heavy rains with thunder and lightning.
October	88	81	74	S.E. . . .	Almost incessant rain and thunder storms.
November	88	81	74	S.E., variable	Heavy rains occasionally.
December	88	80½	73	Variable, squalls	Daily heavy showers of rain.

The total population of the principal islands in the group, amounted in 1825 to 582 whites, 323 free people of colour, and 6058 slaves, all of whom are said to enjoy remarkably good health, and an exemption from the languor and debility so much experienced in other tropical climates. Extreme longevity is very common, and affections of the lungs are almost the only diseases of a serious character to which the inhabitants are subject.

The town of Mahé, which contains about a hundred wooden huts or pavilions, is situated in a small valley on the north-east side of the island; its garrison consists of a subaltern and 28 men under the medical charge of an assistant-surgeon, who are quartered in a wooden barrack of one story. This building being unenclosed, permits the egress of the soldiers at all hours; and as they have but little duty of any kind to perform, too great facilities are afforded for intemperance.

Till 1835 salt rations were issued constantly, fresh meat has since been supplied twice a week; so far as can be learnt there is no absolute scarcity of cattle, and in some of the smaller islands, wild hogs and goats are said to be found in abundance.

As the Hospital Returns from this island are by no means complete, we shall not venture on any statement of the numbers attacked, but the fatal diseases in each year since 1828 have been as follows:—

Mauritius.

Table V.
Showing the Deaths
and Fatal Diseases
among the Troops
stationed at the
Seychelles.

Years . . .		1828	1829	1830	1831	1832	1833	1834	1835	1836	Aggregate Strength 258	Total Deaths.
Strength . . .		28	28	28	28	25	29	30	31	31		
Fevers . . .	Feb. Cont. Com.	1	..	..	..	..	..	..	..	..	1	1
Diseases of Lungs	Phthisis . . .	..	1	..	..	..	..	1	..	..	2	2
Diseases of Liver	Hepatitis Acuta .	..	1	..	..	1	..	..	..	..	2	7
	Ditto Chronica .	..	..	..	..	1	2	..	..	..	3	
	Icterus . . .	..	1	..	..	..	..	1	..	..	2	
Diseases of the Stomach and Bowels	Enteritis. . .	..	..	..	..	..	1	..	..	..	1	11
	Dysentery Acuta .	..	..	2	3	3	1	..	..	..	9	
	Gastritis. . .	..	..	..	..	..	..	1	..	..	1	
Diseases of the Brain	Apoplexia . . .	1	..	..	..	..	..	..	..	1	2	3
	Delirium Tremens	..	1	..	..	..	..	..	..	..	1	
All other Diseases	Asphyxia . . .	..	..	1	..	..	..	..	..	..	1	3
	Suicide . . .	..	..	..	..	..	..	..	..	1	1	
	Invalid . . .	..	..	..	1	..	..	..	..	..	1	
Total . . .		2	4	3	4	5	4	3	..	2	27	27

Thus 27 deaths have occurred in the course of these nine years, out of an aggregate strength of 258, making the average ratio of mortality $10\frac{1}{2}$ per cent. annually, or nearly thrice as high as in the Mauritius.

Where the civil inhabitants are so healthy this mortality cannot altogether be attributed to the influence of climate, much of it probably originated in the diet and intemperate habits of the soldier; 11 out of the 27 deaths were from diseases of the bowels, which seem to have been materially aggravated by the constant use of salt provisions, as no death has taken place from them since fresh provisions began to be issued, though previously the cases of dysentery were so severe that one in four proved fatal.

On this subject one of the medical officers remarks, "Dysentery is by no means a common complaint either among the whites or blacks of the island, and it is scarcely ever fatal; I have tried the remedies which the native practitioners of the place generally use, but find them possessed of no superiority over the others; why then should this complaint be frequent and fatal among soldiers? Can we attribute it to the use of salt provisions, or to the immoderate indulgence in arrack newly distilled?"

Both these causes probably contribute their full share. The salt provisions, if they do nothing worse, induce thirst, and when arrack can be had for 2s. a gallon, the soldier will not quench it with water. Intemperance is consequently carried to a still greater length than in the Mauritius, more especially as the officers in command have no means of carrying into effect the punishments likely to restrain it.

Diseases of the liver have also been exceedingly fatal among this detachment, the deaths from them alone having averaged nearly 3 per cent. of the force annually, and as at the Mauritius, a large proportion of the dysenteric affections may perhaps be attributed to derangement of that organ. It will be observed that two fatal cases of consumption occurred among the small force stationed here, a sufficient proof that even in the most equable of climates, that disease carries off as large a proportion of victims, as in the most inclement regions; the natives, too, are said to suffer considerably from it, but we possess no details to show precisely to what extent.

None but White Troops have hitherto been employed at this station, and having now concluded all our observations in regard to that description of force throughout the Command, the details of the Sickness and Mortality among the Black Pioneers will next be adverted to.

BLACK PIONEERS.

Black Pioneers.

These military labourers have been enlisted for the purpose of relieving the European soldiers from the performance of fatigue and other duties, which subjected them to much exposure. They are distributed under the orders of the Deputy-Quarter-Master-General, among the different corps and detachments throughout the island, and a few are also posted at the signal stations.

They are commanded by a subaltern belonging to one of the regiments in the garrison, and are all negroes, who have either been born in the Mauritius or brought from Madagascar and Mozambique on the East Coast of Africa. They are described as being a more robust and athletic race than those composing the West India regiments, but though, like them, enjoying every advantage in regard to treatment, they are found to suffer in an equal degree from being transplanted to a climate differing so materially from that in which they or their forefathers were born.

Their pay and rations differ considerably from that of the European troops. Each private receives three-pence a day with one pound and a half of rice, a quarter of a pound of salt meat, half an ounce of tobacco, and half an ounce of salt, a ration which experience has shown to be equally well adapted to their constitution, and more congenial to their habits and tastes, than that issued to the Black Troops in the West Indies. Their wives and children receive rations of this description, in the same proportion as the European troops. The men also receive a cloth cap, jacket and trowsers, with two pairs of shoes, two shirts, and a blanket annually.

Rations, Clothing, &c.

We have only been able to trace the medical records of this force since 1825, from which period they supply the following details in regard to the sickness and mortality:—

Mauritius.

Years.	Strength.	Admissions.	Deaths.	Ratio per 1000 of Mean Strength.	
				Admitted.	Died.
1825	126	124	1	984	The numbers are too few to admit of any deductions being drawn from the ratio of mortality in each year.
1826	126	103	..	786	
1827	126	157	6	1,246	
1828	140	118	6	850	
1829	131	123	6	946	
1830	125	113	5	904	
1831	129	100	2	783	
1832	117	105	6	915	
1833	109	75	4	688	
1834	110	66	4	591	
1835	82	54	4	659	
1836	74	32	8	432	
Total	1,395	1,170	52	..	
Average	116	97	4.4	839	37.2

Table VI.
Showing the Admissions into Hospital and the Deaths among the Black Troops in the Mauritius.

Both as regards the admissions and deaths, the ratio is almost exactly the same as among the Black Troops and Pioneers in the Windward and Leeward Command, the former being as 839 to 820, the latter as 37 to 40 per thousand of mean strength annually, so that the Mauritius and the West Indies seem alike unsuited to the constitution of the negro. This shows how vain is the expectation, even under the most favourable circumstances, of that race ever keeping up or perpetuating their number in either of these colonies, when men in the prime of life, selected for their strength and capability for labour, subject to no physical defect at enlistment, and secured by military regulations from all harsh treatment, die nearly four times as rapidly as the aboriginal inhabitants of the Cape, or other healthy countries, at the same age, and at least thrice as rapidly as the white population of the Mauritius. Indeed, so fast is the negro race decreasing there, that in five years the deaths have exceeded the births by upwards of 6000 in a population of 60,000.

Though pathological research has as yet failed to show why the inhabitants of certain countries should exhibit different degrees of susceptibility to particular diseases, yet there can be no doubt of the fact; and the following table, framed from Abstract No. II. of Appendix, will serve to point out those to which the Negro is most amenable in the Mauritius:—

	ADMISSIONS.		DEATHS.	
	Total among whole force in 12 years.	Annual ratio per 1000 of Mean Strength	Total among whole force in 12 years.	Annual ratio per 1000 of Mean Strength
By Fevers	121	87.5	..	..0
Eruptive Fever	1			
Diseases of Lungs	194	139.	18	12.9
,, Liver	36	25.8	8	5.7
,, Stomach and Bowels	179	128.3	7	5.
,, Brain	30	21.5	6	4.3
Dropsies	4	2.9	..	..0
Rheumatic Affections	115	82.4	2	9.3
Venereal ,,	102	73.2	..	
Abscesses and Ulcers	117	83.9	3	
Wounds and Injuries	138	99.6	2	
Punished	8	5.7	..	
Diseases of the Eyes	31	22.2	..	
,, Skin	24	17.2	..	
All other Diseases	70	50.2	6	
Total	1,170	839.4	52	37.2

Table VII.
Showing the principal Diseases among the Black Troops in the Mauritius.

Fevers have obviously little influence on this race, for no death has occurred from them, and the admissions have been in much the same proportion as among an equal number of persons in the United Kingdom; but here, as in all other Colonies in which we have been able to trace the fatal diseases of the negro, the great source of mortality has been those of the lungs, indeed, more die from that class alone than of Hottentot troops at the Cape from all diseases together; but the latter are serving in their natural climate, the former in one to which their constitution never has adapted, and probably never will adapt itself.

It may here be interesting to compare the influence of this class of diseases throughout the different stations where negro troops have been employed.

Mauritius.

	West Coast of Africa.	Honduras.	Bahamas.	Jamaica.	Mauritius.	Windward and Leeward Command.	Gibraltar.
Died annually per 1000 of Mean Strength by Diseases of the Lungs }	6 $\frac{3}{10}$	8 $\frac{1}{10}$	9 $\frac{7}{10}$	10 $\frac{3}{10}$	12 $\frac{2}{10}$	16 $\frac{5}{10}$	33 $\frac{5}{10}$

Thus in his native country the negro appears to suffer from these diseases in much the same proportion as British troops in their native country, but so soon as he goes beyond it, the mortality increases till, in some Colonies, it attains to such a height as seemingly to preclude the possibility of his race ever forming a healthy or increasing population.

It is in vain that we look for the cause of this remarkable difference, either in temperature, moisture, or any of those appreciable atmospheric agencies, by which the human frame is likely to be affected in some climates more than in others, and it is consequently impossible, from any other data than that which the experience of medical records furnishes, to say where this class of troops can be employed with advantage. Nearly two-thirds of the mortality from diseases of the lungs among negroes, arises from pulmonary consumption; and it is worthy of remark, as showing how little that disease affects the natives of some tropical climates, though it proves so fatal to those of others, that among 74,850 native troops serving in the Madras Presidency, the deaths by every description of disease of the lungs did not, on the average of five years, exceed 1 per thousand of the strength annually.

Though accustomed from infancy to a high temperature and constant exposure, the Black Pioneers suffer more from hepatic disease than the White Troops, natives of a northern climate, the mortality being relatively as 5 $\frac{1}{10}$ to 4 per thousand of the strength. The admissions are certainly not so numerous among the former, but as generally happens in Colonial corps, many of the milder cases undergo native treatment without the patient coming into hospital. As the negro does not suffer to any extent from diseases of the liver, either on his native coast or in the West Indies, notwithstanding the high temperature, his liability in the Mauritius seems to arise from some peculiar tendency in the climate to induce them, for which no satisfactory theory has yet been advanced.

Diseases of the stomach and bowels are not half so frequent or so fatal among the black troops as the white, indeed, they do not suffer more from them than when serving on the coast of their native continent. Even that proportion, however, is a sufficiently formidable item in the mortality, and one which in itself would prove a serious obstacle to the increase of any population equally subject to it. Here, as in the West Indies, rheumatic affections are nearly twice as common as among the white troops. The other classes of diseases do not seem to require any specific notice.

SECTION II.

On the Extent of Invaliding among the Troops serving in the Mauritius.

Invaliding.

PRIOR to 1825 the White Troops invalided from this Command were classed along with those from Ceylon, and we have no means of separating them to show the relative proportion from each, but the following Table will supply the necessary details subsequent to that period:—

Table VIII.
Showing the Ratio
discharged annually
as unfit for Active
Service of White
Troops in the Mau-
ritius.

Years.	Mean Strength of Troops.	Discharged totally unfit for further Service.	Found fit for Garrison Duty only.	Total of both Classes.	Ratio per 1000 of Mean Strength Invalided of both Classes.	Number found fit for further Service and sent to their Depôts or Corps.
1825	1,131	34	..	34	30	..
1826	1,338	81	..	81	60	1
1827	1,692	31	2	33	20	11
1828	1,639	61	4	65	40	8
1829	1,650	9	13	22	13	15
1830	1,006	14	21	35	22	4
1831	1,777	33	7	40	23	8
1832	1,861	4	1	5	3	..
1833	2,228	21	..	21	10	6
1834	2,201	12	3	15	7	2
1835	1,934	32	7	39	20	12
1836	1,555	8	2	10	7	..
Total .	20,612	340	60	400	19.5	67

Those stated to be fit for garrison duty only have been included here, because, no regiments being now kept up solely for garrison duty, there is just as little likelihood of the services of these men being again available to the public as if they had been discharged as totally unfit, and they are equally entitled to pension.

The proportion of both these classes has amounted to $19\frac{1}{2}$ per thousand annually, being the same as in the Mediterranean and American Commands.

The disabilities can only be stated for those who have been discharged as totally unfit, and are as follows:—

Mauritius.

Invaliding.

	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	Total.
Dysentery and Hepatic.	4	6	..	7	..	..	4	..	1	1	4	1	28
Eye Diseases . . .	1	..	1	3	..	..	2	..	1	1	..	..	9
Fractures, Dislocations, } Wounds, and Hernia }	2	9	6	10	2	3	4	..	3	1	1	3	44
Mental Diseases . . .	1	..	..	..	..	..	3	2	1	1	1	..	9
Pulmonic . . .	8	7	2	2	..	4	2	2	8	5	13	..	53
Rheumatism and Chro- } nic Pains . . . }	2	5	3	8	..	..	6	..	1	..	6	..	31
Ulcers, Varices, and } Strictures . . . }	1	1	2	3	3	3	3	..	1	1	2	1	21
Venereal . . . . .	..	1	..	..	..	..	1	..	1	..	..	..	3
Worn Out	9	46	16	27	2	..	3	..	..	..	1	1	105
Cachexies	2	..	..	..	..	1	..	..	..	..	..	..	3
Paralysis and Epilepsy .	4	6	1	1	2	2	2	..	..	..	1	1	20
Deafness . . . . .	..	..	..	..	..	1	..	..	..	..	..	1	2
Dropsy and Visceral . .	..	..	..	..	..	..	1	..	3	2	2	..	8
Contractions . . . . .	..	..	..	..	..	..	2	..	1	..	1	..	4
Total Discharged as unfit } for further Service . . }	34	81	31	61	9	14	33	4	21	12	32	8	340

Table IX.
Showing the Dis-
eases or Causes of
Disability of those
found unfit for Ac-
tive Service.

The proportion invalided for each of these diseases is nearly the same as in other Com-
mands, and therefore does not seem to require any particular notice, especially as we have no
means of distinguishing those disabilities which may be attributable merely to age and length
of service from others more immediately resulting from climate.

In regard to the Black Pioneers we possess no information on the subject of invaliding.

SECTION III.

On the Number constantly Sick in Hospital among the Troops in the Mauritius.

THE number reported sick on the muster-day of each month, as stated in the War Office
Returns, will be found in No. IV. of Appendix, from which the following Table has been
compiled to exhibit the results in a comprehensive form:—

Mean Sick.

Year.	Strength.	Average con- stantly Sick.	Ratio per 1000 of Mean Strength constantly Sick.
1818	1,776	80	45
1819	1,650	71	43
1820	1,395	85	61
1821	1,298	85	65
1822	1,346	91	67
1823	1,248	82	66
1824	1,190	90	76
1825	1,131	88	78
1826	1,338	96	72
1827	1,692	97	57
1828	1,639	119	73
1829	1,650	105	64
1830	1,606	111	70
1831	1,777	128	72
1832	1,861	150	80
1833	2,228	174	78
1834	2,201	175	80
1835	1,934	144	76
1836	1,555	98	63
General Average . }	1,606	109	68

Table X.
Showing the Num-
ber constantly Sick
in Hospital of the
White Troops serv-
ing in the Mauritius.

Thus, on the average of these 19 years, 68 men have been constantly sick in hospital out
of every thousand serving in the Command, and, as has before been observed with regard to

Mauritius.
Mean Sick.

the admissions, the number has increased very materially of late. These results, however, apply to the White Troops only; we possess no similar information in regard to the Black Pioneers, as they are not included in the War Office Returns.

From the preceding data the following conclusions may be drawn :—

	In the Mauritius.	In the United Kingdom.
	Days.	Days.
Average sick time annually to each soldier	25	14½
Average duration of each attack	20	16

Thus, each soldier is nearly twice as long in hospital as in the United Kingdom, and the duration of each attack is also longer, most probably owing to the lingering nature of those diseases of the bowels to which the troops are so subject in this Command.

SECTION IV.

On the Influence of Age and Length of Residence on the Mortality among Troops serving in the Mauritius.

Influence of Age, &c.

OUR conclusions on this subject are founded on the following results, obtained from Abstract No. V. of Appendix, which exhibits the number living and deaths which took place at the undermentioned periods of life among each of the corps serving in the Command from 1830 to 1836 inclusive.

PERIOD.	Under 18 Years.		18 to 25.		25 to 33.		33 to 40.		40 to 50.		Total of all Ages.	
	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died
1st January to 31st December 1830 .	3	..	570	12	309	11	135	4	21	2	1,038	29
" " " 1831 .	3	..	577	13	301	13	132	11	19	4	1,032	41
" " " 1832 .	13	..	783	19	580	25	171	8	27	6	1,574	58
" 1833 to 31st March 1834 .	19	1	887	22	1,017	43	198	12	52	5	2,173	83
1st April 1834 " " 1835 .	30	..	640	12	1,170	45	198	14	57	2	2,095	73
" 1835 " " 1836 .	13	..	274	3	983	40	169	11	61	3	1,500	57
" 1836 " " 1837 .	8	..	161	3	1,001	34	212	6	63	5	1,445	48
Total for 7½ Years	89	1	3,892	84	5,361	211	1,215	66	300	27	10,857	389
Deduct a twenty-ninth part of the Deaths to ascertain the Mortality of 7 years exactly . . . . .	..	..	..	3	..	7	..	2	..	1	..	13
Total for 7 Years	89	1	3,892	81	5,361	204	1,215	64	300	26	10,857	376

Converting these results into ratios, on the same principle as in previous Reports, the relative degree of mortality at each of the above ages is found to have been as under :—

Table XI.
Showing the Influence of Age on Mortality among the White Troops serving in the Mauritius.

AGES.	Annual Ratio of Mortality per 1000 of Mean Strength.		Excess of Mortality at each Age in the Mauritius.
	Among Troops Serving in the Mauritius.	Among Dragoon Guards and Dragoons Serving in the United Kingdom.	
18 to 25	20·8	13·9	6·9
25 ,, 33	37·5	14·	23·5
33 ,, 40	52·7	17·3	35·4
40 ,, 50	86·6	26·7	59·9
Average of all Ages . }	34·6	15·3	19·3

The deterioration of constitution with the advance of age in the Mauritius, as shown by these results, must have been extremely rapid. To exhibit its operation in this respect more clearly, we have brought into comparison the progressive increase of mortality at the same ages among the Dragoon Guards and Dragoons serving in the United Kingdom, from which it appears that though, between the ages of 18 and 25, the ratio is but 7 per thousand higher than in this country, that difference increases, between the ages of 40 and 50, to nearly 60 per thousand. Consequently residence in this Colony seems to affect the oldest at least eight times as much as the youngest class of soldiers,—a very remarkable disproportion indeed, even within the tropics.

It is out of the question to attribute this rapid deterioration of life entirely to the influence of climate, because in that case we should find the same feature manifested in a corresponding degree among the higher ranks of officers, who, though between the ages of 40 and 50, have suffered comparatively little in this Colony; and so far from any similar feature being manifested among the civil population, extreme longevity is nearly as common as in this kingdom.

In the absence of any other cause likely to induce this peculiarity, we are led to believe it in a great measure the result of the intemperance so prevalent among the troops, which, though it may not add materially to the mortality of persons in the vigour of youth, is likely, if persisted in, to sap the springs of life and expose its victim to the diseases and broken constitution incident to old age ere he has attained those years which among the more temperate may be held to constitute the prime of manhood.

Whether this rapid deterioration of life is the result of the soldier's own intemperance or of the influence of climate, however, it seems equally necessary, as a remedial measure, to limit as much as possible the period of his residence in this island, as has recently been done in the West Indies, by causing the latter years of his tour of foreign service to be passed in some other Colony where the facilities to intemperance are fewer and the climate more favourable to a broken constitution. This measure certainly offers a greater probability of reformation than leaving the soldier for a long series of years exposed to the temptations which originally seduced him into a course of dissipation, and might afford some hope of such a renovation of constitution as would render him for many years a healthy and efficient soldier, instead of sinking into an untimely grave or being thrown at a comparatively early age on the pension list.

To such an arrangement there might be an objection if the health of the soldier was found to improve by length of residence, or, as it is technically called, by acclimatization; but the fallacy of such a supposition is not only proved indirectly from the facts before stated in regard to the increase of mortality with the advance of age, but directly by reference to the relative proportion of deaths during each successive year of residence, among the different corps which have arrived in the island since 1826:—

	29th Foot arrived Sept. 1826.	99th Foot arrived Feb. 1826.	87th Foot arrived July, 1831.
1st Year of Residence	Died. 13	Died. 7	Died. 13
2nd „ „	25	6	18
3rd „ „	19	10	12
4th „ „	13	14	15
5th „ „	17	15	18
6th „ „	34	22	18
7th „ „	17	13	..
8th „ „	18	12	..
9th „ „	18	18	..
10th „ „	16	25	..
11th „ „	5	20	..
Total	195	162	94
Average	18	15	15½

Table XII.
Showing the Influence of Length of Residence on Corps serving in the Mauritius.

The strength of each of these corps during the above period was very nearly the same, viz. about 500 men, yet in two of them the mortality during the first four years will be found considerably lower than in the subsequent ones,—thus clearly proving that their health must have deteriorated the longer they remained in the island.

The mortality in the 99th, compared with that of the other regiments, affords another proof how erroneous is the supposition that a corps composed of young men must necessarily suffer to a greater extent in a tropical climate than one composed of soldiers at a more mature age. Having been raised so late as in 1825, four-fifths of that regiment were under 20 when sent to the island, yet it lost fewer than any of the others; and during the first three years of its service there, the ratio of mortality was even lower than among the most favoured class of troops in Britain.

10.3	12.3	34.6	Average of all Ages
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Mauritius.

Influence of Age, &c.

SECTION V.

On the Sickness and Mortality among the Officers serving in the Mauritius.

Mauritius.
Mortality, &c. of
Officers.

THE salubrious character which, in the course of these observations, has been assigned to the climate of the Mauritius, will be found amply confirmed in this stage of our investigation. By the War Office Returns the number of officers in the Command (staff included) averaged, from 1818 to 1836, about 90, and the aggregate strength during that period was . . . 1702

Of whom there died, from the diseases after specified	14
By diseases not known	3
At home, or on the passage, of disease contracted in the Mauritius	4
At the Cape of Good Hope, supposed from same cause	1
Drowned	3

Total 25

Making the ratio of mortality about 15 per thousand annually, even including the accidental deaths which, having occurred from shipwreck, must be left out of view in all conclusions as to the influence of climate.

The extreme rarity of deaths among officers in this Colony has long been a subject of remark, indeed the proportion from disease is as low as in the United Kingdom, a sufficient proof that, though within the tropics, the climate of this island, like that of St. Helena, does not of itself exercise any decidedly unfavourable influence on the health of Europeans.

This fact is established also by the limited number of officers who came under treatment, for various diseases, in the course of these 19 years, as enumerated in No. VI. of Appendix, of which the results are exhibited in the following Table:—

Table XIII.
Showing the Mor-
tality and principal
Diseases among
Officers serving in
the Mauritius.

	1818 to 1836 inclusive, Aggregate Strength 1,702.		Annual Ratio treated per 1000 of Mean Strength in Mauritius.	Annual Ratio treated per 1000 of Mean Strength at the Cape of Good Hope.
	Number Treated.	Number Died.		
By Fevers	88	2	52	50
Diseases of the Lungs	81	3	47	65
" Liver	42	3	25	16
" Stomach and Bowels	173	2	102	101
" Brain	13	3	8	9
Dropsies . . . . .	..	..	..	1
Rheumatic Affections	51	..	30	41
Venereal	80	..	47	45
Abscesses and Ulcers	92	..	54	42
Wounds and Injuries	65	1	38	70
Diseases of the Eyes	8	..	5	10
" Skin	2	..	1	4
All other Diseases	36	..	21	28
Other Causes before specified . . . . .	..	11	..	..
Total	731	25	430	482

Thus the number treated is even smaller than at the Cape, in the proportion of 430 to 482. Some slight cases may no doubt have been omitted, as the diseases of officers are not reported with the same regularity as those of the privates, and it is even probable that in some of the years no report was received of those who came under treatment at the out-stations. As the same source of error, however, applies with equal force to those at the Cape it will not materially affect the comparison.

It will be observed that notwithstanding the remarkable prevalence of diseases of the stomach and bowels among the troops, no such feature is manifested among the officers at the Mauritius, the proportion treated being almost exactly the same as at the Cape. There is a slight excess in diseases of the liver, but the results in regard to all the other classes are very nearly alike.

SECTION VI.

On the Influence of the Seasons in producing Sickness and Mortality among the Troops in the Mauritius.

THIS Command being, like the Cape and St. Helena, to the southward of the Line, the unhealthy season occurs at the directly opposite period to that which is usual in the Northern Hemisphere, as is proved by the following Table, compiled from Abstract No. VII. of Appendix, showing the admissions and deaths among the force from 1818 to 1836 inclusive:—

Mauritius.

Influence of the Seasons.

Table XIV.
Showing the Influence of the Seasons on the Sickness and Mortality of Troops in the Mauritius.

	ADMISSIONS.				DEATHS.			
	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	Total by all Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	Total by all Diseases.
In 19 Januarys . . .	2,224	277	1,361	3,862	68	18	2	88
19 Februarys . . .	2,076	236	1,133	3,445	62	11	2	75
19 Marches . . .	2,163	242	1,250	3,655	73	18	1	92
19 Aprils . . .	2,076	246	1,186	3,508	92	18	4	114
19 Mays . . .	1,793	247	1,309	3,349	62	10	2	74
19 Junes . . .	1,439	266	1,251	2,956	56	15	3	74
19 Julys . . .	1,348	272	1,222	2,842	49	11	4	64
19 Augusts . . .	1,335	243	1,160	2,738	35	19	2	56
19 Septembers . . .	1,404	253	1,209	2,866	34	7	3	44
19 Octobers . . .	1,475	302	1,259	3,036	42	12	4	58
19 Novembers . . .	1,747	291	1,208	3,246	43	24	3	70
19 Decembers . . .	2,225	281	1,171	3,677	81	17	1	99
In 19 Years . . .	21,305	3,156	14,719	39,180	697	180	31	908

This Table includes the Black Pioneers as well as the White Troops, but the admissions and deaths of the former are too few to influence materially the results. There are also some discrepancies between the above totals and those recorded in the former part of this Report, though too slight to be of any importance in the general mass.

As it is the admissions by acute diseases which principally mark the influence of the seasons, we have converted that class into ratios, for the purpose of showing the exact proportion which occurred in each month, as follows:—

In	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	S-pt.	Oct.	Nov.	Dec.	Total.
Out of every thousand Admissions into Hospital for Acute Diseases the proportion occurring in each Month was	104½	97½	101½	97½	84	87½	63	63	66	69	82	104½	1000

These admissions will be found at the minimum from July to October, the unhealthy season in the Northern Hemisphere, from which periods they increase in regular progression till December and January, when they attain the maximum; the deaths follow the same law, but not with equal regularity, because many of the cases entered as acute, may linger for some time before terminating fatally.

Similar conclusions in regard to the healthy and unhealthy seasons are attained by reference to the average number daily sick in hospital, as stated in Abstract No. IV. of Appendix, viz.—

In	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Monthly Average.
Average constantly Sick of whole Force	119	116	120	121	109	100	100	100	92	101	112	117	109

It follows then, as a practical conclusion from these results, that to admit of troops arriving in this colony at that season when they are least likely to be affected by the transition, they must embark at a directly opposite period to those intended for tropical colonies to the north of the Line. This is of minor importance at the Cape, where so little difference can be traced in the healthy and unhealthy seasons, but in the Mauritius the distinction seems well worthy of attention.

CONCLUDING OBSERVATIONS.

*Mauritius.*Concluding Ob-
servations.

IN this and the two preceding Reports we have not deemed it necessary to submit any separate section of deductions, because the most important of them have already been embodied in the observations on the different classes of diseases, and because they are so corroborative of what has already been stated in the concluding sections of previous Reports that it would be difficult to avoid a repetition of the same ideas and the same arguments, if we were again to enter fully on that subject.

When the sphere of our observations shall have been extended over all the foreign possessions of the British Crown, as will shortly be the case, a series of deductions will be obtained in regard to the influence of the same diseases on similar bodies of troops in almost every quarter of the globe, sufficiently ample to afford the means not only of testing the accuracy of our previous conclusions, but of extending them much farther than has hitherto been deemed prudent.

APPENDIX TO REPORT
ON THE
SICKNESS, MORTALITY, AND INVALIDING
AMONG THE TROOPS
SERVING IN
THE MAURITIUS.

CONTENTS.

	No. of App.		No. of App.
<i>Abstract showing the Admissions into Hos- pital and Deaths among the White Troops serving in the Mauritius from 1818 to 1836 inclusive.</i>	1	<i>Abstract showing the Ages of the Troops serving in the Mauritius, and Deaths at each Age, from 1st January 1830 to 31st March 1837</i>	5
<i>Ditto ditto of Black Troops from 1825 to 1836 inclusive</i>	2	<i>Ditto showing the numbers Treated and Deaths among the Officers serving in the Mauritius from 1818 to 1836 inclusive .</i>	6
<i>Ditto ditto of White Troops from 1812 to 1817 inclusive, with Ratio of Sickness and Mortality by each Class of diseases during that period</i>	3	<i>Ditto showing the number of Admissions into Hospital and Deaths in each month among the White Troops in the Mauritius from 1818 to 1836 inclusive</i>	7
<i>Abstract showing the number Sick in Hospital on the Muster-Day of each Month from 1818 to 1836 inclusive,</i>	4		

No. I. WHITE TROOPS.

In framing this Abstract, the following deaths stated in the Medical Quarterly Returns have been omitted, viz.:—Phthisis, 2; Dysentery Chronica, 2; Enteritis, 1; Total, 5; which occurred among Invalids on their passage home from Ceylon and India. Also the following which occurred at the Island of Seychelles, viz.:—Febris Cont. Com. 1; Phthisis, 2; Hepatitis, 2; Icterus, 1; Enteritis, 1; Dysentery Acuta, 4; Apoplexia, 1; Delirium Tremens, 1; Total 13. There have been added to the Abstract the following deaths, which appear to have been omitted in the Quarterly Returns, viz.:—1 of Enteritis in 1819; 1 of Hepatitis in 1827; 2 of Dysentery in 1830; 2 of Phthisis in 1831; and 1 of Delirium Tremens in 1834: Total 7.

Showing the Admissions into Hospital and Deaths among the Troops serving in the MAURITIUS, from 1825 to 1836 inclusive.
No. II. BLACK TROOPS.

Classes of Diseases.	Years	1825		1826		1827		1828		1829		1830		1831		1832		1833		1834		1835		1836		From 1825 to 1836.					
		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Strength		Aggregate Strength 1835.					
		126		126		126		140		131		125		129		117		109		110*		82		74		Admitted.		Died.			
		Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.		
Fevers.	Febris Cont. Com.	20	..	8	..	13	..	12	..	14	..	9	..	10	..	12	..	7	..	8	..	3	..	5	..	121	121	..	..
Eruptive Fevers.	Varicella	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	
Diseases of the Lungs.	Pneumonia	2	..	3	..	1	..	2	..	6	1	1	..	3	..	2	..	4	1	1	..	1	..	..	..	26	194	8	18	
	Pleuritis	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..	..	4	1				
	Hæmoptysis	..	..	1	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	3	1				
	Phthisis Pulmonalis	1	..	..	..	2	1	3	2	1	1	..	..	1	1	1	..	1	..	..	..	..	..	3	2	13				
	Catarrhus Acutus	12	..	12	..	21	1	24	..	8	1	12	..	5	..	18	1	1	..	10	..	7	2	..	..	130				
	.. Chronicus	..	..	..	..	..	..	1	..	4	..	1	1	2	..	1	..	2	..	3	1	..	..	1	..	15				
	Asthma period. Cony.	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1				..
Dyspnoea Continua.	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..		
Diseases of the Liver.	Hepatitis Acuta	..	..	2	..	5	1	1	1	..	1	1	4	..	3	1	2	..	..	..	4	1	1	2	25	36	7	8		
	.. Chronica	..	..	2	..	..	..	2	..	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	8				1	
	Icterus	1	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	3				..	..
Diseases of the Stomach and Bowels.	Enteritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	179	6	7		
	Dysentery Acuta	10	..	8	..	21	2	3	1	3	1	7	..	7	..	3	1	8	..	2	1	2	..	..	74				1	
	.. Chronica	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2				..	..
	Dyspepsia	..	..	..	..	2	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	4				..	..
	Colica	..	..	2	..	3	..	2	..	2	..	13	..	..	..	7	..	4	..	3	..	..	..	1	..				37	..
	Diarrhoea	8	..	2	..	1	..	7	..	8	..	2	..	11	..	3	..	2	..	3	..	..	..	..	47				..	..
	Obstipatio	..	..	2	..	..	..	..	..	4	..	..	..	2	..	1	..	1	..	..	..	3	..	..	13				..	..
Cholera Morbus	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..			
Diseases of the Brain.	Phrenitis	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	30	1	6		
	Cephalalgia	3	..	1	..	..	..	..	..	3	..	3	..	1	..	..	..	..	..	..	..	..	..	..	11				..	..
	Apoplexia	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1				2	..
	Paralysis	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..				3	..
	Amentia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	1				..	..
	Mania	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4				..	..
	Delirium Tremens	1	1	1	2				..	1	..
Epilepsia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	1	..	..	..	..	1	1	4	..	2	..		
Dropsies.	Anasarca	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	4	4	..	..	
Rheumatic Affections.	Rheumat. Acutus	17	..	7	..	9	..	10	1	4	..	7	..	7	..	6	..	1	..	1	..	7	..	..	76	115	1	2		
	.. Chronicus	1	..	5	..	2	..	5	..	5	..	4	..	..	..	2	1	1	..	1	..	2	..	3	31				..	..
	Lumbago	..	..	..	..	..	..	..	..	..	..	4	..	..	..	4	..	..	..	..	..	..	..	..	8				..	..
Venereal Affections.	Syphilis Primitiva	4	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	102	..	..	
	.. Consecutiva	..	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3				..	..
	Ulcus Penis non Syph.	..	..	2	..	4	..	4	..	..	..	3	..	6	..	4	..	1	..	3	..	2	..	2	31				..	..
	Bubo Simplex	..	..	1	..	2	..	6	..	..	..	3	..	..	..	3	..	..	..	3	..	..	..	..	18				..	..
	Gonorrhoea	2	..	2	..	4	..	1	..	5	..	1	..	4	..	3	..	..	..	2	..	1	..	..	25				..	..
Hernia Humoralis	..	..	4	..	5	..	1	..	3	..	2	..	..	..	..	..	..	..	2	..	..	..	..	17	..	..			
Abscesses and Ulcers.	Phlegmon et Abscessus	5	..	4	..	13	..	3	..	6	..	5	2	7	..	6	..	8	..	3	..	1	..	1	62	117	2	3			
	Ulcus	8	..	5	..	6	..	5	..	5	..	5	..	4	..	3	..	4	..	2	1	2	49				..	1	..
	Fistula	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	2	6				..	..
Wounds and Injuries.	Subluxatio	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	4	138	1	2		
	Vulnus Incisum	7	..	4	..	5	..	3	..	4	..	6	..	6	..	10	..	2	..	3	..	2	..	1	53				..	..
	Contusio	6	1	6	..	10	..	6	..	7	..	7	..	10	..	2	..	6	..	3	..	3	..	1	67				..	..
	Ambustio	1	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	3	..	..	..	..	7				..	..
Fractura	..	..	1	..	..																								

Showing the Total Number of Admissions into Hospitals
serving in the MAURITIUS, from

1835 to 1836.		
Strength 1835.		
Died.		
By each Disease.	By each Class of Diseases.	
121	..	..
1	..	..
194	18	..
36	8	..
17	7	..
3	6	..
15	3	..
102	..	..
117	3	..
138	..	..
8	..	..
31	..	..
70	6	..
170	52	52

Year . . .		1812	1813	1814
Strength . .		3788	4210	3817
Classes of Diseases.	Specific Diseases.	Total Admissions.		
		By each Disease.	By Class of Diseases.	
Fevers.	Febris Intermittens . . .	85		
	,, Remittens . . .	47		
	,, Cont. Com. . .	2141		
	,, Synochus . . .	5		
	,, Typhus . . .	1		
Eruptive Fevers.	Variola	6		
	Varicella	38		
	Rubeola	19		
Diseases of the Lungs.	Pneumonia	377		
	Pleuritis	14		
	Hæmoptysis	43		
	Phthisis Pulmonalis . . .	137		
	Catarrhus	381		
	Asthma	19		
Diseases of the Liver.	Hepatitis Acuta	1041		
	,, Chronica	181		
	Icterus	41		
Diseases of the Stomach and Bowels.	Peritonitis	2		
	Gastritis	7		
	Enteritis	55		
	Dysentery	2972		
	Dyspepsia	28		
	Colica	24		
	Diarrhœa	885		
	Obstipatio	8		
Diseases of the Brain.	Cholera Morbus	137		
	Phrenitis	34		
	Ictus Solis	1		
	Apoplexia	16		
	Paralysis	27		
	Mania	34		
	Hydrocephalus	1		
	Delirium Tremens	130		
Dropsies.	Epilepsia	69		
	Anasarca	27		
	Ascites	52		
Rheumatic Affections.	Hydrothorax	16		
	Beri beri	87		
	Rheumat. Acutus	228		
Venereal Affections.	,, Chronicus	143		
	Odontalgia	1		
	Syphilis	1059		
Abscesses and Ulcers.	Gonorrhœa	462		
	Hernia Humoralis	20		
	Stricture Urethræ	45		
Wounds and Injuries.	Phlegmon et Abscessus . .	1092		
	Apostema Lumbare	2		
	Ulcus	2642		
	Fistula	32		
	Luxatio	20		
Punished.	Subluxatio	9		
	Vulnus	728		
	Contusio	64		
	Ambustio	13		
	Fractura	84		
Diseases of the Eyes.	Punitus	1030		
	Ophthalmia	178		
Diseases of the Skin.	Nyctalopia	10		
	Psora	656		
	Morbi Cutis	26		
	Cynanche Tonsillaris . . .	33		
	Splenitis	42		
	Nephritis	3		
	Erysipelas	35		
	Epistaxis	4		
	Hæmorrhoids	105		
	Hæmorrhagia	1		
	Tetanus	8		
	Hysteria	2		
	Hydrophobia	1		
	Atrophia	19		
	Tabes	6		
	Hydrocele	17		
	Physconia	4		

Showing the Number Sick in Hospital of the Troops serving in the MAURITIUS, on the Muster-Day of each Month, from 1818 to 1836 inclusive.

MONTHS.	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	Aggregate Sick.	Average Monthly Sick.
January.	72	73	96	75	97	113	97	91	81	115	128	109	118	130	176	179	202	159	145	2256	119
February.	92	69	99	71	114	80	88	81	86	121	125	130	110	109	167	177	185	162	128	2194	116
March.	95	68	110	94	96	94	88	109	99	106	159	149	124	106	187	134	197	149	124	2288	120
April.	89	78	101	92	85	73	113	109	88	109	158	114	99	119	178	183	242	149	112	2301	121
May.	97	66	97	80	99	84	87	92	82	90	130	96	121	110	147	180	157	158	96	2069	109
June.	80	71	78	82	80	67	81	91	61	80	109	93	95	137	106	173	162	158	85	1894	100
July.	68	46	73	81	87	81	82	89	65	117	96	102	110	116	110	182	159	162	72	1898	100
August.	66	80	84	94	88	71	82	79	90	65	94	103	98	177	125	144	149	141	63	1893	100
September.	66	51	64	86	84	60	73	73	83	70	98	82	117	107	139	163	165	106	68	1755	92
October.	71	67	79	93	93	80	92	72	101	97	93	91	101	132	145	186	142	117	74	1926	101
November.	83	74	77	84	89	95	101	81	148	98	123	111	98	121	150	194	161	136	95	2119	112
December.	72	104	67	90	80	92	100	88	168	93	118	80	137	169	165	186	183	137	116	2245	117
Total.	961	847	1025	1022	1092	990	1084	1055	1152	1161	1431	1260	1328	1533	1795	2086	2104	1734	1178	24838	1307
Average.	80	71	85	85	91	82	90	88	96	97	119	105	111	128	150	174	175	144	98	2069	109

ABSTRACT No. V. OF APPENDIX.

Showing the Ages of the Troops composing the Service Companies of Corps stationed in the MAURITIUS and the Deaths at each Age, from 1st January 1830 to 31st March 1837.

YEARS.	CORPS.	Under 18 Years.		18 to 25.		25 to 33.		33 to 40.		40 to 50.		Total of all Ages.	
		Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died
1830	29th Foot . . .	1	..	209	2	166	5	122	4	17	2	515	13
	82nd „ . . .	No returns.											
	99th „ . . .	2	..	361	10	143	6	13	..	4	..	523	16
	Total . . .	3	..	570	12	309	11	135	4	21	2	1038	29
1831	29th Foot . . .	1	..	227	5	163	6	119	9	15	3	525	23
	82nd „ . . .	Returns not available.											
	99th „ . . .	2	..	350	8	138	7	13	2	4	1	507	18
	Total . . .	3	..	577	13	301	13	132	11	19	4	1032	41
1832	29th Foot . . .	..	..	201	7	160	9	111	6	19	6	491	28
	87th „ . . .	13	..	279	5	218	8	37	..	2	..	579	13
	99th „ . . .	..	..	383	7	172	8	23	2	6	..	504	17
	Total . . .	13	..	783	19	580	25	171	8	27	6	1574	58
From 1st Jan. 1833 to 31st March 1834.	9th Foot . . .	11	..	266	11	229	11	37	2	9	1	552	25
	29th „ . . .	..	..	160	5	239	12	89	7	35	3	523	27
	87th „ . . .	3	..	206	5	305	7	47	1	4	1	565	14
	99th „ . . .	5	1	255	1	214	13	25	2	4	..	533	17
	Total . . .	19	1	887	22	1017	43	198	12	52	5	2173	83
From 1st April 1834 to 31st March 1835	9th Foot . . .	11	..	255	6	218	12	35	1	8	..	527	19
	29th „ . . .	6	..	181	2	213	7	74	6	35	1	509	16
	87th „ . . .	3	..	134	1	337	13	52	4	6	1	532	19
	99th „ . . .	10	..	70	3	402	13	37	3	8	..	527	19
	Total . . .	30	..	640	12	1170	45	198	14	57	2	2095	73
From 1st April 1835 to 31st March 1836.	29th Foot . . .	3	..	154	1	207	9	78	6	44	2	486	18
	87th „ . . .	2	..	65	..	380	13	53	3	7	..	507	16
	99th „ . . .	8	..	55	2	396	18	38	2	10	1	507	23
	Total . . .	13	..	274	3	983	40	169	11	61	3	1500	57
From 1st April 1836 to 31st March 1837.	29th Foot . . .	4	..	73	..	255	5	96	1	48	2	476	8
	87th „ . . .	1	..	37	1	373	16	67	3	8	..	486	20
	99th „ . . .	3	..	51	2	373	13	49	2	7	3	483	20
	Total . . .	8	..	161	3	1001	34	212	6	63	5	1445	48

General Results from 1st January 1830 to 31st March 1837.

PERIOD.	Under 18 Years.		18 to 25.		25 to 33.		33 to 40.		40 to 50.		Total of all Ages.	
	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died	Strength	Died
1st January to 31st December 1830 .	3	..	570	12	309	11	135	4	21	2	1038	29
„ „ „ 1831 .	3	..	577	13	301	13	132	11	19	4	1032	41
„ „ „ 1832 .	13	..	783	19	580	25	171	8	27	6	1574	58
1st April 1834 to 31st March 1835 .	19	1	887	22	1017	43	198	12	52	5	2173	83
„ „ „ 1835 .	30	..	640	12	1170	45	198	14	57	2	2095	73
„ „ „ 1836 .	13	..	274	3	983	40	169	11	61	3	1500	57
„ „ „ 1837 .	8	..	161	3	1001	34	212	6	63	5	1445	48
Total for 7½ Years . . .	89	1	3892	84	5361	211	1215	66	300	27	10857	389
Deduct a twenty-ninth part of the deaths to ascertain the mortality of 7 years exactly . . .	..	..	..	3	..	7	..	2	..	1	..	13
Total for 7 Years . . .	89	1	3892	81	5361	204	1215	64	300	26	10857	376

Of the above there died at Chatham, or on their passage home, the following numbers of each class:—

PERIOD.	18 to 25 Years.	25 to 33.	33 to 40.	40 to 50.	Total.
1st Jan. to 31st Dec. 1831 . . .	..	1	2	..	3
„ „ „ 1832 . . .	1	1	..	..	2
1st April 1834 to 31st March 1835 .	..	..	1	1	2
1st „ 1835 „ 1836 .	..	2	..	..	2
Total .	1	4	3	1	9

Five Invalids of the 87th Regiment and four of the 99th lost at Sea, on their passage home in 1836, have not been included in this Abstract.

Showing the Number Treated and Deaths among the Officers serving in the MAURITIUS, from 1818 to 1836 inclusive.

Classes of Diseases.	Specific Diseases.	Years		1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	From 1818 to 1836.														
		Strength		44	90	87	84	84	85	81	77	86	98	98	87	90	98	103	114	109	105	82	Aggregate Strength 1702.														
				Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Adm.	Died.	Admitted.		Died.											
				By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.	By each Disease.	By each Class of Diseases.										
Fevers.	Febris Remittens	2	1	1	..	1	..	3	..	2	..	9	1	4	..	3	..	5	..	23	..	10	..	9	..	4	..	5	..	1	..	87	88	2	..
	Cont. Com.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Lungs.	Pneumonia	1	..	1	..	1	..	2	2	3	1	..	12	1		
	Pleuritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hæmoptysis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Phthisis Pulmonalis	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Catarrhus Acutus	1	2	..	1	..	3	..	1	..	3	..	1	..	4	..	3	..	7	..	10	..	3	..	4	..	57	..	1		
	Chronicus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Liver.	Asthma period. Conv.	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hepatitis Acuta	2	1	3	..	3	..	4	1	1	..	3	..	2	..	1	..	2	..	2	..	2	..	28	12	..	42	..		
	Chronica	1	..	1	..	1	..	1	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	12	..	..	..	..	..	2	..	..	..
Diseases of the Stomach and Bowels.	Icterus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Peritonitis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteritis	..	..	..	..	..	2	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Dysentery Acuta	1	..	5	..	4	..	5	1	..	1	..	5	..	2	..	7	..	9	..	55	..	3	..	4	..	3	..	173	..		
	Chronica	..	..	..	..	..	..	..	..	1	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Dyspepsia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Colica	..	..	..	..	2	..	5	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diarrhoea	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Brain.	Obstipatio	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cholera	..	..	1	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Apoplexia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cephalalgia	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic Affections.	Paralysis	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Mania et Melancholia	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Delirium Tremens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Epilepsia	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Venereal Affections.	Rheumat. Acutus	1	3	1	..	5	..	1	4	..	2	..	4	..	8	..	7	..	1	..	40	..	7	..	51	..		
	Chronicus	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Lumbago	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Podagra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis Primitiva	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Consecutiva	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Abscesses and Ulcers.	Ulcer Penis non Syph.	..	..	..	..	..	..	..	..	..	..	2	..	..																					

Showing the Number of Admissions into Hospital and Deaths among the Troops serving in the MAURITIUS, in each Month, from January 1818 to December 1836 inclusive.

I. ADMISSIONS.															
MONTHS.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.
Years .	1818			1819			1820			1821			1822		
January .	81	6	48	57	2	51	205	2	52	47	9	49	64	13	52
February .	77	1	49	54	4	50	82	3	30	71	3	47	86	14	62
March .	81	3	66	51	2	41	91	2	42	92	5	34	78	14	60
April .	104	6	41	70	5	51	59	4	44	71	10	40	67	11	54
May .	107	2	54	55	5	47	63	1	45	43	7	38	47	16	43
June .	66	2	42	60	6	68	46	13	49	50	6	45	44	12	53
July .	66	12	61	90	26	72	34	4	38	39	4	66	36	11	40
August .	72	6	51	60	11	67	52	3	48	37	15	55	59	14	41
September .	86	4	55	50	7	54	26	7	48	33	7	48	43	21	31
October .	102	4	63	53	10	54	41	8	59	42	9	56	46	23	50
November .	106	7	45	44	7	52	38	14	67	65	3	53	53	13	39
December .	90	3	48	200	9	39	47	12	55	59	7	37	66	9	27
Total .	1038	56	623	844	94	646	784	73	577	649	85	568	689	171	563
Years .	1823			1824			1825			1826			1827		
January .	97	14	30	67	22	31	73	20	38	39	21	37	162	17	98
February .	76	8	23	66	13	33	60	25	28	23	16	21	164	14	109
March .	56	14	33	50	11	40	93	20	35	84	33	55	124	10	67
April .	48	14	20	63	9	34	117	13	43	117	20	66	93	16	61
May .	50	10	34	71	19	35	63	15	40	81	34	117	69	13	54
June .	34	8	31	60	7	26	48	12	52	56	17	75	62	12	51
July .	31	7	29	42	14	32	49	15	57	53	17	74	70	13	74
August .	27	10	21	57	7	34	38	10	58	63	24	39	53	13	71
September .	22	5	24	33	15	38	49	12	48	91	21	60	62	19	46
October .	56	24	37	35	15	46	47	11	40	163	37	76	84	24	74
November .	82	21	39	46	20	46	80	36	48	174	28	76	94	17	71
December .	55	17	31	55	12	49	64	29	27	212	17	63	111	13	74
Total .	634	152	352	645	164	444	781	218	514	1156	285	759	1148	181	869
Years .	1828			1829			1830			1831			1832		
January .	147	31	98	182	17	58	104	20	93	116	18	86	217	14	130
February .	166	25	65	156	11	49	183	27	59	138	19	81	149	14	104
March .	154	28	67	190	10	48	137	21	80	133	11	71	134	10	127
April .	180	19	60	138	12	54	107	18	63	127	12	70	170	22	105
May .	130	20	56	94	20	53	89	19	62	99	6	73	141	1	97
June .	106	35	43	71	22	64	92	25	87	97	17	91	87	10	79
July .	70	11	47	65	37	67	65	16	60	138	31	81	88	10	70
August .	67	13	43	71	16	60	86	24	68	138	21	101	77	16	79
September .	82	7	41	99	16	59	85	14	77	139	24	135	140	22	101
October .	69	22	53	86	19	65	71	6	62	87	25	100	91	16	94
November .	115	17	55	87	22	50	91	12	77	119	16	93	127	5	74
December .	135	23	55	91	20	60	102	16	66	155	10	99	238	18	105
Total .	1471	251	683	1330	222	687	1212	218	854	1486	210	1081	1659	158	1163
Years .	1833			1834			1835			1836			Total for 19 Years.		
January .	147	17	96	166	16	153	128	11	98	125	7	63	2224	277	1361
February .	125	11	83	166	12	73	141	9	100	93	7	64	2076	236	1133
March .	162	14	99	200	11	103	145	13	103	108	10	79	2163	242	1250
April .	109	25	113	215	16	135	119	8	82	102	6	50	2076	216	1186
May .	198	17	121	126	18	150	154	15	125	113	9	63	1793	247	1309
June .	161	21	122	133	16	140	107	9	85	59	16	37	1439	266	1251
July .	186	15	120	85	17	96	87	9	97	54	3	39	1348	272	1222
August .	154	14	96	84	20	97	88	6	89	52	..	34	1335	243	1160
September .	122	23	112	107	11	87	86	9	88	49	9	54	1404	253	1209
October .	192	19	118	90	12	96	72	10	80	48	8	40	1475	302	1259
November .	178	22	104	103	15	71	79	9	80	66	7	67	1747	291	1208
December .	171	19	95	132	25	119	93	7	65	99	15	53	2225	281	1171
Total .	1905	217	1279	1607	189	1320	1299	115	1092	968	97	643	21,305	3156	14,719

II. DEATHS.															
MONTHS.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.	By Acute Diseases.	By Chronic Diseases.	By Surgical Diseases.
Years .	1818			1819			1820			1821			1822		
January .	4	1	..	5	..	..	15	1	..	1	1	1	..	1	1
February .	2	..	..	2	..	1	4	..	..	7	..	..	..	2	1
March .	5	1	..	..	..	..	1	1	..	3	..	..	..	2	..
April .	4	1	..	5	2	..	5	3	..	3	1	1	..	4	..
May .	4	..	..	3	1	..	7	..	..	1	..	..	..	..	..
June .	4	..	..	2	1	..	4	1	..	3	1	..	..	..	..
July .	3	2	..	5	1	1	4	2	..	1	..	..	..	2	..
August .	2	2	..	3	..	..	1	1	..	4	..	..	..	1	..
September .	2	1	1	..	..	..	..	..	..	1	..	..	..	3	..
October .	2	1	..	7	..	..	2	..	..	1	..	..	..	1	..
November .	4	2	..	2	1	..	4	..	..	2	3	..	..	3	1
December .	3	..	..	23	..	..	1	..	..	1	..	..	..	3	1
Total .	39	11	1	57	6	2	48	9	..	28	6	2	21	3	2
Years .	1823			1824			1825			1826			1827		
January .	6	1	..	2	1	..	..	1	..	1	1	..	..	1	..
February .	2	..	..	1	1	..	1	1	..	..	..	..	..	3	1
March .	2	..	..	1	1	..	1	..	..	..	..	1	..	5	..
April .	2	1	..	3	..	..	4	1	..	4	..	..	..	3	2
May .	5	..	..	..	..	..	..	..	..	1	1	..	..	2	..
June .	1	1	..	2	1	1	1	1	..
July .	2	1	..	1	..	1	4	1
August .	1	2	1	..	1	1	1	1	..
September .	..	1	..	1	1	1	..	2
October .	3	1	..	1	1	..	2	1	1	2			

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